VOL. IV TORONTO, MAY 1920 NO. 5

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Biological
& Medical
Serials

The Canadian Medical Monthly

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MAY, 1920

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HAY FEVER
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Clinical results, covering more than 12,000 cases, attest the value of **Pollen Antigen.** During the past five years, from 1915 to 1919 inclusive, **Pollen Antigen** has afforded relief from hay fever by conferring an average protection of 82.7%.

Treatment should be commenced six weeks before the usual onset of the attack of hay fever.

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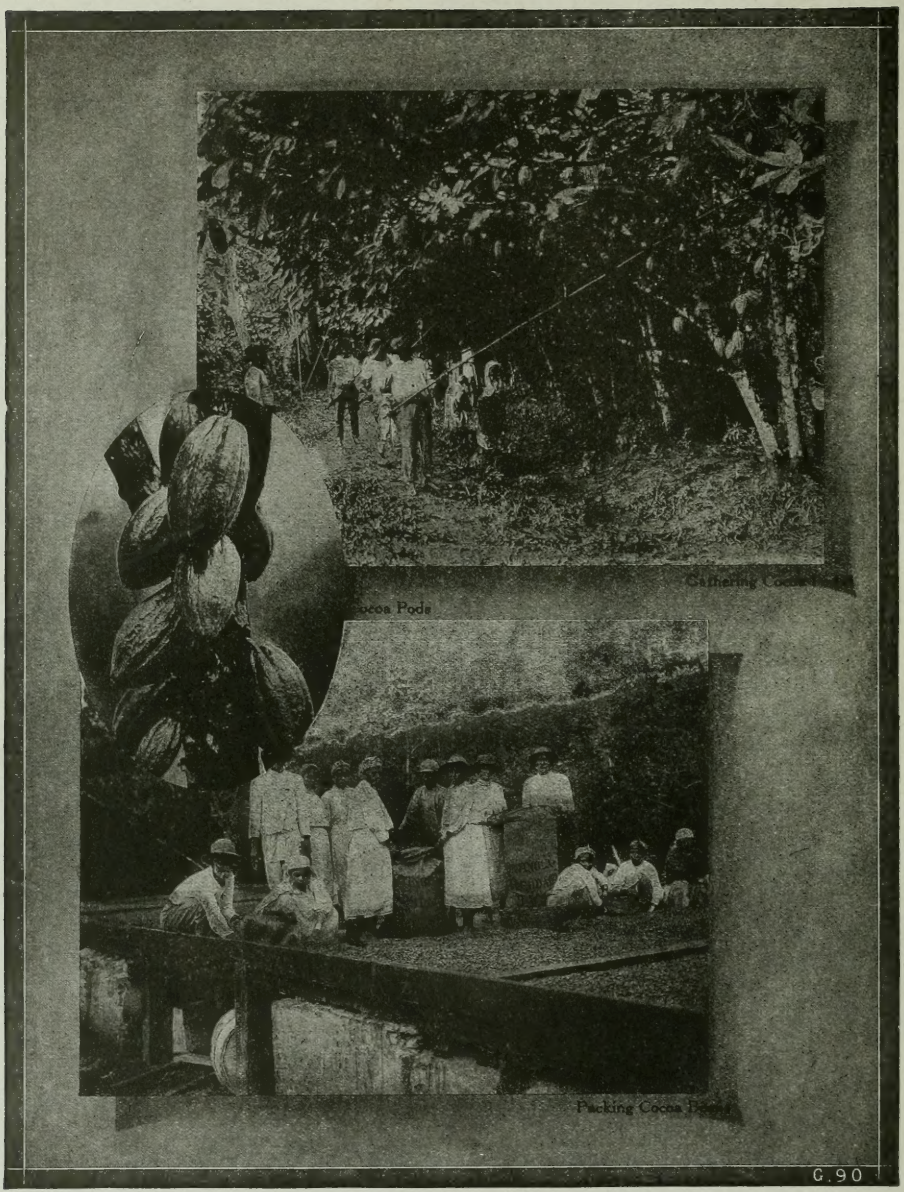

COWAN'S COCOA

AND ITS PROCESS OF MANUFACTURE

No. 1

The upper illustration shows natives gathering the fruit of the "Cacao Theobroma" tree, which flourishes in warm moist climates, such as the West Indies, Ceylon, Africa, Mexico, Brazil.

From the red flowers of the tree come yellow pods which (as will be observed from the insert) have the form of an angular cucumber. When ripe, the pods are split, showing about 40 Cocoa Beans, which are spread out to dry, and after being subjected to a process of fermentation, are packed, as demonstrated in the lower picture, and shipped to Cowan's factory in Toronto.

Cowan's Cocoa and Chocolate in all its forms, is made from the highest grade, selected and skillfully blended Cocoa beans.

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MAY 1ST, 1920

To the Medical Profession in Canada

THIS will serve to announce the opening of our own Canadian branch located at 57 Colborne Street, Toronto, where a complete stock of all "ABBOTT" products is now on hand for your convenience.

The ever increasing demand in Canada for our preparations, has made this branch a necessity, and, we hope, when normal traffic conditions are restored, that we shall be able to render you the same efficient service which would be given, if our manufacturing plants were actually located in Canada.

In the following pages we mention a few of the leading "ABBOTT" preparations which have stood the exacting tests made by some of the most critical practitioners of long experience throughout the world. But, nevertheless, we urge your own **personal** experiment as the evidence that should be, to you, far more satisfactory and convincing.

Your orders and enquiries to the above address will be greatly appreciated and, if we can be of assistance to you in any other direction please command us.

Respectfully,

THE ABBOTT LABORATORIES

Are You Popular, Council-Pas

DICHLORAMINE-T

Most powerful of the Dakin antiseptics. Far more efficient than phenol or bichloride of mercury. Does excellent work in the treatment of infected wounds, especially when used in connection with our Par-resined Lace-Mesh Dressing. Wounds heal cleanly and rapidly under it; infection is soon checked; with gratifying end-results as a rule. Useful also to forstall and to suppress infection of the aural and nasal cavities. Per oz. 75 cts. Also to be had in tablets, one of which dissolved in one ounce of Chlorcosane makes a 1% solution. Bottle 100, $1.00. Chlorcosane, per pint, $2.88.

AROMATIC CHLORAZENE POWDER

An innovation of rare merit and wide utility. It yields an aromatic, alkaline, saline solution of Chlorazene, of high antiseptic efficiency, that may safely be entrusted to your patient for daily use when need arises. Effective against infection wherever localized, such a solution serves many purposes, above all for application to the upper air-passages as a spray, gargle or douche. It makes an excellent mouth-wash. In 4 ounce bottles, 75 cts:

CHLORAZENE

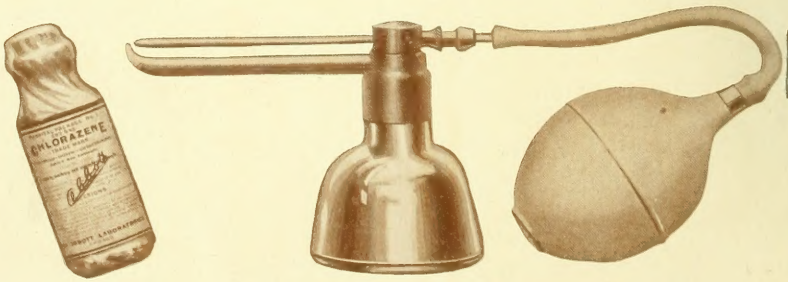
Dakin's synthetic chlorine-carrying antiseptic soluble in water and stable both in original powder form and in solution; with the tablets solutions of any strength are readily made as wanted. It acts quickly, accomplishing in minutes what the older antiseptics require hours to do, yet is neither poisonous nor irritating to skin or mucous surfaces. For general use, in office, surgery, or sick-room it seems all that could be desired. Bottle of 500 tablets at $3.10. Powder, Hospital Package, No. 2, at $3.40.

CHLORCOSANE

The proper solvent for Dichloramine-T. The latter antiseptic is not soluble in water but only in oils, the best of which by test has been found to be the low-melting paraffin wax of commerce, saturated with chlorine gas. When so saturated it becomes a straw-colored, odorless, tasteless liquid. Its bland and oily consistence is advantageous in itself, keeping the antiseptic longer in contact with the infected area. In pint bottles at $2.88.

ABBOTT'S ALL PURPOSE ATOMIZER

For applying the Dakin and any other solutions desired, whether aqueous, alcoholic or oily. Especially suited for Dichloramine-T-Chlorcosane. Delivers a fine abundant spray with no clogging or interruption. The solution used comes in contact only with glass which makes the appliance especially suitable for spraying chlorine antiseptics which advisedly should never come in contact with metallic surfaces. The chamber is of amber glass and the nozzle of black-enameled glass An atomizer without an equal. Price $2.00.



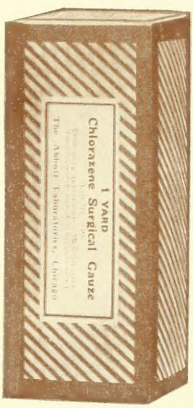
Using The
sed Dakin Products?

CHLORAZENE SURGICAL CREAM

Prepared from the formula of Carrel and Daufresne of the Rockefeller Institute. Contains 1% of Chlorazene in a neutral sodium stearate base. It is not greasy. It rubs in quickly. Excellent for surface application in cases of localized skin infection and irritation, such as eczema, pruritis, dandruff, burns, wounds, abrasions, ulcerations, ivy poisoning, dermatitis. Tests show that it maintains the asepsis of wounds already sterile and sterilizes a mildly infected wound. Per 3½-ounce jar, 80 cts.

PARRESINED LACE-MESH DRESSING.

A wax-impregnated lace-mesh surgical dressing different from all others in that it does not stick to the wound but may readily be removed without disturbing the delicate new epithelial cells in the course of healing. At the same time it permits of free drainage and access of air, as well as antiseptic solutions, when used through the open meshes which number about 10 to the square inch. In 10-yard rolls, $3.50 net. Also in boxes of 6 envelopes each containing a strip 6 x 18 inches, per box, $1.60.



HALAZONE

Another of the chloramines introduced by Dr. H. D. Dakin for the sterilization of suspicious drinking water. One tablet containing 1/16 grain of this synthetic agent suffices to sterilize a quart of water contaminated with typhoid, cholera or other water-conveyed disease germs. Its value as a prophylactic is obvious. Bottle of 1000 at $1.05.

CHLORAZENE SURGICAL POWDER

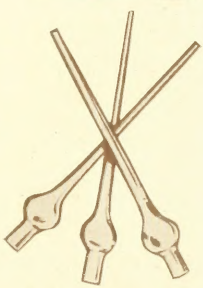
A dusting powder containing 1% of Chlorazene in combination with zinc stearate, 10%, and sodium stearate 89%. Fine, impalpable, neutral, highly absorbent. Forms a thin film when applied to the skin, which is soothing and protective. A slight astringency adds to its germicidal quality a material healing effect, which makes it particularly useful for superficial sores and wounds. In 1-ounce sprinkler-top cans at 55 cts.

CHLORAZENE SURGICAL GAUZE

This gauze is impregnated with Chlorazene to the extent of 5%. A good dressing for accessible wounds of all sorts, serving both as a protective to areas already sterile and to suppress infection already present and begun. Handy and efficient also for packing sinuses and abscess cavities. A dressing for all emergencies. In 5-yard rolls at $2.40

LEE-FURNESS PIPETTE

Designed for use with an all-glass syringe when applying or injecting antiseptic solutions. Useful for syringing the nasal cavities and for anterior urethral work; also for reaching fistulas, sinuses, wound pockets and other deep parts. Per box of three, $1.56.



Abbott Dependable Biologics

FOLLOWING is a complete list of stock bacterins made by The Abbott Laboratories, with formulas. We have adopted two standard packages. (1) In ampules, each containing 1 mil, packed six ampules to the box. (2) Our new improved bulk bacterin containers, one of 5 mil capacity and one of 20 mil capacity.

Our Ampules are of actinic glass, filled under rigid aseptic conditions, and immediately sealed to prevent contamination. They are packaged at once and stored in the ice box until time of shipment.

Our new bulk bacterin container is the result of several years of careful experimentation and is confidently offered as the one which most nearly meets all the requirements of such a package. It is of a squat shape which prevents tipping over. A rubber cork is impressed tightly into the neck of the bottle. This cork contains a diaphragm through which the hypodermic needle may be inserted, the hole closing tightly upon withdrawal of the needle.

For the convenience of the physician our bacterins are grouped together under the general conditions designating their purpose.

BACTERINS FOR RESPIRATORY DISEASES

No. 1195 Influenza Pneumococcus Combined Bacterin.
Each mil contains:

Pneumococci, Types. I, II, III and IV	3,000,000,000
Streptococci, (pyogenes and viridans)	1,000,000,000
B. Influenza	500,000,000
Staphylococcus Aureus	500,000,000

For prophylaxis against epidemic influenza and the pneumonic complications of influenza. First dose 0.5 mil, second dose 1 mil, third dose 1.5 mil, at 6 to 7-day intervals.

No. 1117. M. Catarrhalis-Combined-Bacterin

Bacillus Friedlander	100,000,000
Bacillus Influenza	200,000,000
Micrococcus catarrhalis	200,000,000
Pneumococci	200,000,000
Streptococci	200,000,000
Staphylococcus albus and aureus mixed	300,000,000

For the treatment and prophylaxis of recurrent "colds," grip, bronchitis, "catarrh," Spanish Influenza, etc.

No. 951. Pneumococcus-Bacterin

Pneumococci, Types I, II, III and IV	1,000,000,000

No. 952. Pneumococcus-Combined-Bacterin

Pneumococci	300,000,000
Streptococci	200,000,000
Staphylococcus, albus and aureus (mixed)	500,000,000

The Pneumococcus-Bacterin contains killed pneumococci of different strains, and is employed in all pure pneumococcic infections, both local and general. The Pneumococcus-Combined-Bacterin is designed for the treatment of mixed infections caused by these organisms, such as pneumonia, empyema, pleurisy, broncho-pneumonia, bronchitis, and the secondary infection in tuberculosis.

WHOOPING-COUGH BACTERIN

No. 1115. Pertussis-Combined Bacterin

Bacillus pertussis	400,000,000
Bacillus influenza	200,000,000
Micrococcus catarrhalis	200,000,000
Pneumococci	200,000,000
Streptococci	200,000,000
Staphylococcus albus and aureus, (mixed)	800,000,000

STREPTOCOCCUS BACTERIN

No. 958. Streptococcus-Bacterin

Streptococci Mixed Pyogenes, Viridans, etc.	500,000,000

No. 1116. Streptococcus-Rheumaticus Combined Bacterin

Streptococcus rheumaticus (viridans, hemolyticus, etc	250,000,000
Pneumococci	250,000,000
Staphylococcus albus and aureus	750,000,000

No. 1118. Streptococcus-Viridans-Combined Bacterin (for pyorrhea)

Streptococcus viridans and hemolyticus, etc.	100,000,000
Pneumococci	100,000,000
Staphylococcus albus and aureus (mixed)	400,000,000
M. Catarrhalis	50,000,000
Pseudo Diphtheria Bac	100,000,000

No. 953. Strepto-Bacterin (Scarlatina Bacterin)

Streptococci (from scarlet fever cases)	100,000,000

No. 959. Combined-Bacterin, Van Cott

Streptococci	100,000,000
Pneumococci	200,000,000
Bacillus coli	200,000,000
Staphylococci albus and aureus (mixed)	1,000,000,000

Streptococcus Bacterins are indicated in streptococcus infections.

Special indications are: puerperal and wound septicemia, endocarditis, cellulitis, lymphangitis and erysipelas focal infections.

The Streptococcus Rheumaticus Combined Bacterin is prepared from strains of organisms secured from cases of rheumatism, for which disease it is especially indicated. The Streptococcus Viridans Combined is intended for the treatment of pyorrhea (Riggs' disease), while the Van Cott is effective in many obscure diseases of infectious origin.

ACNE BACTERINS

No. 956. B. Acne-Combined Bacterin

Staphylococcus albus	2,000,000,000
Bacillus acne	100,000,000
Bacillus Coli	300,000,000

No. 957. Staphylo-Mixed Bacterin

Staphylococcus albus and aureus (mixed)	4,000,000,000

These bacterins are employed in the treatment of skin suppurations and particularly in boils, carbuncles, acne, felons, eczema, sycosis, osteomyelitis, adenitis, superficial abscesses, wound infections, and other disease conditions due to the presence of some form of the staphylococcus.

COLI BACTERIN

No. 114. Bacillus-Coli-Combined-Bacterin

Streptococcus viridans	50,000,000
Streptococcus hemolyticus	50,000,000
Bacillus coli	100,000,000

The Coli-Bacterin (containing the bacillus coli) has been found exceedingly valuable in cystitis, which is usually caused by this organism. Also, it has been found useful in colitis, pyelitis, cholecystitis, rectal and ischiorectal abscesses, fistula in ano, sinuses, pyosalpinx, endometritis, peritonitis, appendicitis, supranephritic and hepatic abscesses, enteritis, intestinal indigestion, catarrhal jaundice, acute nephritis and other conditions caused by the bacillus coli.

GONOCOCCUS BACTERIN

No. 949. Gonococcus Bacterin

Gonococci	1,000,000,000

No. 950. Gonococcus-Combined-Bacteris

Staphylococcus albus	1,000,000,000
Staphylococcus aureus	800,000,000
Streptococci	400,000,000
Bacillus coli	400,000,000
M. Catarrhalis	100,000,000
Gonococci	1,000,000,000
Pseudo Diphtheria Bac	300,000,000

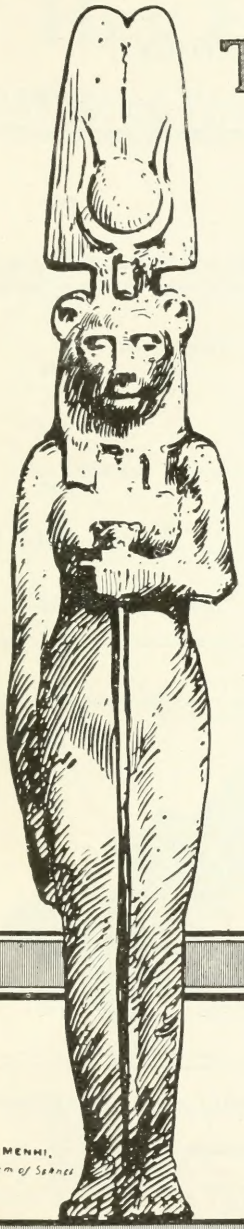
Gonococcus Bacterins have been used with good results in gonorrhea in all its forms, including urethritis, periureteritis, prostatitis, vesiculitis, cystitis epididymitis, orchitis, gleet, vulvovaginitis, endometritis, salpingitis, peritonitis, arthritis, conjunctivitis, endocarditis and all other local or systemic infections and complications due to the diplococcus of Neisser. It is of greatest value in chronic infections.

BACTERINS FOR TYPHOID FEVER

No. 962. Typhoid-Prophylactic

First dose, 500,000,000; second and third doses 1,000,000,000 killed typhoid bacilli.

THE ABBOTT LABORATORIES



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THE CANADIAN MEDICAL MONTHLY

VOLUME IV MAY, 1920 NUMBER 5

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Hay Fever Memoranda

SERIES II.

Late Spring Type

Patients whose hay fever develops in the latter part of May, or during June, should be tested with the pollens of the chief grasses, such as orchard grass, timothy, red top—and certain early flowering weeds.

Late Summer Type

Patients whose hay fever develops in mid-August and continues until frost should be tested with the pollens of such weeds as ragweed and goldenrod, the related sunflower; also with the pollen of the one important late flowering grass, viz. corn, if exposed to same.

Arlco-Pollen Extracts

For **Cutaneous Tests** and **Treatment** cover early and late spring, *also* **summer** and **autumn.**

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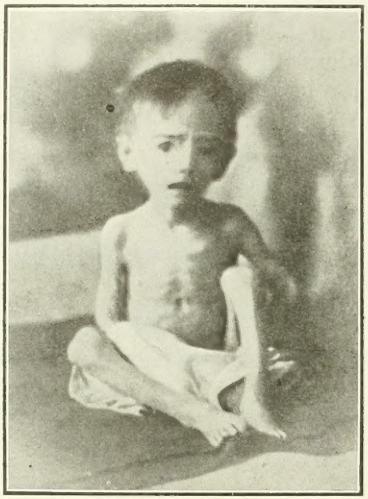
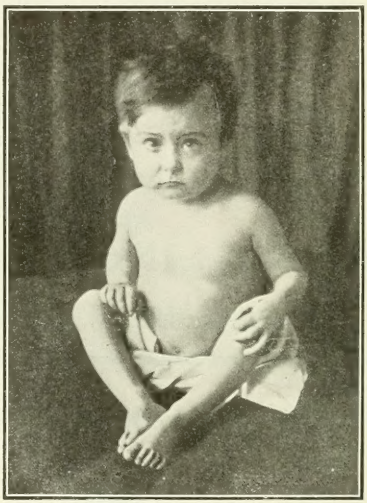


BEFORE VIROL.



AFTER VIROL.

9½ lbs. gained in 5 weeks.

These photos were supplied by the Medical Superintendent of one of the principal London Infirmaries. The first photo was taken on February 3rd. The child then weighed 20lbs. 9 ounces. The second photo was taken March 9th, five weeks later, when the child weighed 30lbs 2 ounces. Not being able to take ordinary food he was fed on Virol and milk, and upon this diet he made a complete recovery.

After investigating this case Mr. Labouchere's paper "Truth" states "it was neither more nor less than the exact record of indisputable fact.

Virol is a valuable nutrient in Malnutrition, Marasmus, Anæmia, Rickets, and Consumption. The delicate nature of the preparation and the ease with which it is assimilated gives it a special value in Gastric Dyspepsia and Gastric Ulcer. Virol is free from chemical preservatives, and the materials are treated in a manner that does not alter their nature.

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INDICATIONS: Neurasthenia and all asthenic conditions; impotence, premature senility and the debilities of old age; menstrual disorders and climacteric disturbances; chronic cardiac cases with hypotension, circulatory stasis and cold extremities; convalescent and post-febrile weakness.

Hormotone Without Post-Pituitary

should be used instead of the regular formula in neurasthenia associated with high blood pressure.

Dosage: One or two tablets three times daily before meals.

¶ Hormotone is put up for physicians' prescriptions in bottles of 100, two and a half grain tablets.

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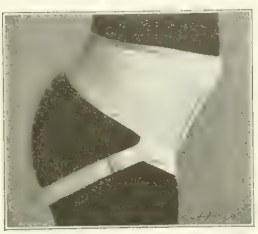

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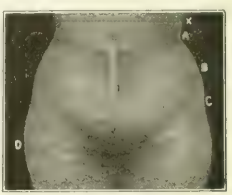

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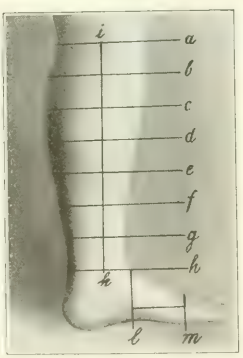

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The Canadian Medical Monthly

VOL. IV., NO. 5 TORONTO, CANADA MAY, 1920

EDITORIAL

THE EYE ON THE LEVEL

A breakfast incident inspired the thought which the writer desires to develop under the above caption.

"Put your eye on a level with the buffet and see the dust on it."

The dust wasn't obvious from a cursory downward glance, but sure enough, the eye on the level did not fail to observe a filmy covering.

And just in this connection it might be pointed out that the eye on the level will frequently reflect to the ocular and cerebral centres what otherwise remains unobserved.

But what has all this to do with an editorial in a medical journal? Simply this. Put your eye, visually and mentally, on a level with conditions as existing all about us to-day and images, quite possibly overlooked in the busy life of the practitioner, will be borne in with beneficial results.

Has the medical profession attempted to get its eye on a level with the lay thought of to-day as evidenced by the many groupings, labour and capital, profession and business, and expressed in the most divergent ways?

Let us admit the truth, we have not done so.

From time to time groups of medical men meet together where the relations of the profession to the rest of the world are discussed, but instances are altogether too few where the profession, individually or collectively, has got its eye on the level, in an attempt to get at the root of conditions existing to-day.

We hear much of State Insurance, State Control of Medicine, labour allegiance to irregulars, and many other topics more or less directly associated with the profession of medicine.

Occasionally a member of the profession with the courage of his convictions, speaks out in no unmistakeable terms and just as frequently leaves himself open to censure as commendation.

The profession does not complete its honourable duty in the study and treatment of disease alone. We must get our eyes on a level with all problems of social evolution and reconstruction and take our full share in the shaping of the destinies of our people.

THE AFTERMATH

One of the great causes of dissatisfaction to those medical officers who served overseas has been that on their return to Canada they have found what had perhaps been quite a lucrative practice, absolutely wiped out, their patients being regularly attended by physicians and surgeons who had remained at home; and consequently, their livelihood gone, until through long and tedious efforts they have once again worked up a living income.

Perhaps this should have been expected by any man who went to the front, but at the same time the apparent injustice of the matter, the real difference between the reward of him who served Overseas and of him who stayed at home, has grated somewhat harshly upon the sensibilities of the former. In addition to this apparent injustice, the selfishness of some who gave little in the cause of the Allies, particularly in some localities, has aggravated the ill-feeling caused by conditions as they are.

One has known a surgeon with a large practice who gave it up to serve in the Medical Forces of Canada at a wage upon which he could not keep himself and family, and who, upon his return, not only found his practice completely transferred to others, but found these others apparently oblivious to his return; inasmuch as not one of them over a long period of time threw in his way any opportunity, by consultation or references, of his regaining any part of all he had given up.

Can it be wondered that the surgeon mentioned feels somewhat bitter towards his confreres, when he feels that not only did he injure his own prospects in life by serving, but, while doing so, upheld the honour of those very men who have shown so little appreciation of his sacrifices. And there is no doubt that the same conditions have obtained in many different localities in Canada, if not in all.

Ill-feeling caused by facts such as here related could have been, and perhaps may yet be, at least partially eliminated by a more generous attitude on the part of physicians and surgeons who remained at home—possibly through no fault of their own—but certainly profiting by the absence of their professional brethren.

Is it too late for this subject to be given a more kindly consideration than it has been given by the physicians and surgeons in the different centres of Canada who are in the more fortunate financial position of these two classes of professional men? A negative answer to this query might do a great deal to bridge the chasm which exists between those who served and those who did not serve; and it might also assist in bringing the medical profession back to that high fraternal plane which it occupied before the beginning of hostilities in 1914.

WHAT IS WRONG?

Appearing elsewhere in this issue is an article entitled "What is Wrong with the Medical Practice of To-day?"

The writer undoubtedly has given much time and thought to the presentation of his subject, and whether or not the sentiments expressed are shared by all practitioners, the profession cannot fail to recognize the justification for many of the arguments set forth by Dr. Mullin.

Are we, as practitioners, truly appreciative of the high calling which is ours? Have we calmly reflected upon our responsibilities and, keeping pace with the onward and upward evolution of social progress, honestly endeavored to evolve within our own ranks qualities of thought and service commensurate with the demands?

Medical science has made rapid strides in the past few decades. Achievements in many branches are hardly short of marvellous, but does all this constitute our obligations to humanity whom we serve? The answer is absolutely No. In attempting to prevent, diagnose and treat disease, the practitioner is fulfilling in a large measure the services which he has delegated to himself, but the profession as a whole, must recognize the greater responsibility of assuring a credulous public that the individual member is qualified to perform the service of which he purports to be capable.

Such assurance can only be accomplished by education and legislation, with some form of control and test. There should be established a measuring stick backed up by legislation which periodically demands that each practitioner be charted as to his qualifications for continuing in practice.

The recognized medical profession takes serious objection to legislation which will charter the chiropractor and various other cults on the ground that these irregulars are not qualified to be entrusted with the keeping of the public health.

Does graduation from a recognized medical school and a Provincial or Dominion license preclude the possibility of a member of the chartered medical profession becoming unqualified to share that public and professional confidence which, by virtue of degree, is conferred upon him?

Sins of omission are ofttimes more serious than sins of commission. Medical councils keep a sharp lookout for instances of malpractice, misconduct, breaches of ethics, etc., but what action has ever been taken to rectify wrongs occurring due to lack of knowledge of modern principles of the practice of medicine? The fault is not individual. The profession as a whole has not yet grasped its bounden duty to humanity. Intensive education by way of post-graduate work must be made available to all practitioners. He who honestly desires to keep himself efficient will thus be assisted and need not fear his position. The slothful, the indolent and the barnacle should be called to the mark, and this can only be accomplished when and if the medical profession institutes methods of examination whereby the practitioner is proven worthy of continuance of professional and public confidence.

EXTENSIVE CALCIFICATION OF THE FIBRINOUS DEPOSIT ON THE VISCERAL AND PARIETAL PLEURA OCCURRING IN EMPYEMA

C. E. Smyth, M.B., Medicine Hat, Alta.

Numerous cases of empyema have been observed complicating influenza. When detected early and appropriate treatment followed, results in Medicine Hat Hospital were almost uniformly good. The treatment followed was:

a. Early and frequent incision with resection of a portion of a rib.

b. Drainage with rubber tubes.

c. Frequent irrigations with Dakin's Solution.

d. Use of Wolff bottles to aid expansion of the lung.

e. Later, lung and general gymnastics to further aid expansion of the lung and limit contraction of the chest on the affected side.

In old and neglected cases that resist treatment as above, one can resort to a variety of measures.

Repeated injections of Beck's bismuth paste has given good results.

An Estlander or Schede operation may be necessary.

Decortication as advised by Delorme and Lilienthal may be successful in many cases.

Ransohoff claims good results from multiple incisions through the fibrinous deposit covering the lung.

The following case may be of interest:

Jacob W. suffered from influenza in January, 1919. He remained at his home in the country without medical attention until April 1st, 1919, when he entered Medicine Hat Hospital, and his left pleural cavity was found to be full of pus. The usual treatment of incision with rib resection, followed by frequent irrigations with Dakin's Solution and use of Wolff bottles, was followed. The lung didn't expand, and other operative treatment, an Estlander or Schede operation or decortication was urged, but refused. He went home with a discharging sinus and returned to hospital early in January, 1920. The wound was enlarged to provide freer drainage, irrigations with Dakin's Solution and aid of Wolff bottles again instituted without any further expansion of the lung as determined by X-Ray plates. He then consented to further operation, and a modified Schede was done, six ribs being removed. The especially interesting point found at operation was the condition of the pleura. Besides being very much thickened with fibrinous deposit, both the parietal and visceral surfaces were covered with bony scales. These were curetted and dissected off the lung and parietal pleural surfaces. Decortication was found impracticable, as was also multiple incisions, on account of bleeding. Obviously the presence of this extensive scaling would render futile treatment by bismuth paste or measures other than thorough removal of the scales with rib resection sufficient to obliterate the cavity.

THE USE AND ABUSE OF DRUGS

1. The Role of Expectorants

J. W. Crane, London, Ontario*

Expectorants as defined by Bastedo (1) are remedies that facilitate the expulsion of mucus from the respiratory organs. Several factors play a role in this process, the ciliated epithelium, the act of coughing and a peristaltic-like movement (2) of the smaller bronchioles.

Of these, the ciliated epithelium is the most important. These specialized cells are found in the trachea, bronchi and in patches even in the terminal bronchioles (3). The contraction of the cilia follow in a definite, orderly manner and are co-ordinated. This increases greatly their effectiveness in performing work. Thus, in spite of their extremely minute size, an area of a square centimeter (2/5 inch by 2/5 inch), according to Howell (4), is capable of moving a load of 336 grams (10.5 oz.). To accomplish this amount of work, it is essential that the cilia move rapidly. Henderson and Taylor (5) have demonstrated that cilia carried mucus at the rate of 5.3 cm. (2.1 inches) per second.

The efficiency of the cilia is increased when the viscosity of the mucus is lessened, and this can be accomplished either by increasing the water content or by "salt action," for example of ammonium chloride, on mucus. Emetics, according to Whitla (6), "cause the tubes to sweat." There is an outpouring of fluid into the bronchial tract, thinning the mucus and lessening its viscosity. Miller (7) has demonstrated that the nausea and vomiting produced by emetics are accompanied by an increase in the rate and depth of respiration. This increased pulmonary ventilation will also favorably assist in the expulsion of mucus. The nauseating, or the so-called stimulating, expectorants include such drugs as antimony, ipecac, apomorphine, squills, senega, sanguinaria, ammonium carbonate. Antimony has the advantage over the others in that it is slowly absorbed and so induces a prolonged nausea of slight degree.

Ammonium chloride and sodium iodide are two drugs that are excreted by the bronchi unchanged, and have a solvent or "salt action" on the mucus. Coleman (8) in the report of his investigation of the clinical value of ammonium chloride as an expectorant, points out that the salty taste of the drug can be recognized in the sputum within one-half to one hour after administration. The ammonia nitrogen was increased, proving that the salty taste was due to the ammonium chloride. The subjective symptoms were relieved, but when the

(*Department of Pharmacology, Western University Medical School.)

drug was stopped, the sputum became less abundant and more tenacious with a sensation of dryness or tightness in the chest. These symptoms were relieved when the drug was again administered. If the dose is large enough, it will act as a nauseant and increase the secretion of water in the bronchi.

The use of alkalies in the treatment of bronchitis is recommended especially by the older writers. Lauder Brunton (9) observed the presence of moist rales after the administration of alkalies, especially around the margins of a tuberculous cavity. "When these (alkalies) are continued until the expectoration has been free for a day or two and the rales diminish, acids may be given with advantage, so as to dry up the expectoration still more." It is questionable, according to Cushny (10), whether alkalies are excreted by the bronchi.

Coughs are divided into two classes, useful and useless. The larger percentage of coughs is useless or ineffectual, and so, harmful, hence the universal use of opium in bronchitis. The act of coughing, by increasing air currents carries upwards the secretions in the trachea and larger bronchial tubes, but has no effect on the bronchioles. The patient who tries to "raise the phlegm" which is in the bronchioles, by coughing, is doing himself more harm than good. The cough, not only of bronchitis, but also of pneumonia and tuberculosis, should be minimized. It is well on this account to tell your patient the less he coughs the less he has to cough. If he can control the cough without opium it is better for him to do so. The dose should be sufficient to diminish the irritation to the point that the cough will just suffice for removal of secretion.

When the sputum is abundant, as in chronic bronchitis, terpin hydrate, creasote, cubebs, copaiba are said to be indicated. Of these, terpin hydrate is probably the most popular. It is a white powder, insoluble in water and not very soluble in alcohol, hence it is advisable to give it as a tablet or powder rather than in the form of an elixir. Cadbury (11) reported a case where 7.5 cc. (less than two drachms) of Elixir Terpin Hydrate and Heroin produced symptoms of mild alcoholic intoxication. It is well not to use the drug indiscriminately in the treatment of bronchitis of the old, especially if a nephritis is present. Cubebs and copaiba have passed the zenith of their glory and are found in the scrap heap of the modern therapeutist.

In acute bronchitis, where the suptum is thick and tenacious, expectorants are serviceable. The nauseating expectorants, e.g., Vinum Antimoniale, will thin the mucus by causing an outpouring of water. Drugs having a "salt action," e.g. ammonium chloride and sodium iodide, will produce the same effect by their solvent action on mucus. Either type of drug, then, will increase the efficiency of the cilia in the effect to expel the secretions from the bronchial tract. Opium should be used only when the cough is uncontrollable or so troublesome as to interfere with sleep. If the drug is prescribed separately, the dose can be increased or decreased, e.g. at night; it can be stopped entirely when its further use is not indicated.

The choice of expectorants has been largely empirical, and it has been easy to use such a "shotgun" prescription as Syrup of White Pine (Syr. Pinus Alba). The accusation of Hatcher and Wilbert (12) is not without an element of truth when they state that "there is a striking similarity between the composition of nostrums advertised to physicians in numerous medical journals and that of the patent medicines, so-called, which are advertised directly to the public. It is obvious that it matters little, so far as the consequences are concerned, whether the patient doses himself with Ayer's cherry pectoral or Jayne's expectorant, or has compound syrup of cocillana or glyco-heroin (Smith) prescribed for him by the physician."

If the sputum is scanty and tenacious three drugs, ammonium chloride, sodium iodide and tartar emetic are recommended, better alone than in a combination. The following prescriptions may be of service:—

Rx

Ammonii chloridi	3iss-iii	6.0 — 12.0
Fl. Ext. Glycyrrhizæ	3ii	8.0
Syrupi simplicis	3i	30.0
Aquam ad	3iv	120.0

Misce. Signa. 3i q. 2-3 h. in aq.

or

Sodii iodidi	3i-iii	4.0 — 12.0
Elixiris simplicis	3i	30.0
Aquam ad	3iv	120.0

Misce. Signa. 3i q. 3-4 h. in aq.

or

Vini Antimonialis	3ii-iii	8.0 — 12.0
Elixiris simplicis	3i	30.0
Aquam ad	3iv	120.0

Misce. Signa. 3i q. 3-4 h. in aq.

If the cough is uncontrollable or interferes with sleep, opium is useful, e.g.:

Rx

T.T. Codeinæ gr. 1/4 ..... 0.015

Signa. Take one as directed by the physician.

If the sputum is abundant, terpin hydrate is recommended, especially if nephritis is not present.

Rx

T.T. Terpinæ hydratis grs. ii 0.12

Signa. Take one four times a day.

SUMMARY

1. The most important factor in the removal of mucus is the mechanical action of the ciliated epithelium.
2. The chief value of expectorants is in thinning the mucus.
3. Ammonium chloride and sodium iodide by "salt action," antimony by its emetic effects, opium by its sedative effect on cough, and terpin hydrate by its action in checking excessive secretion are the most useful expectorants.
4. Opium should be used only when the cough cannot be controlled voluntarily. It should be given alone and not in a mixture with other expectorants.
5. Terpin hydrate may do harm if the bronchitis is associated with a nephritis.
6. Syrup of White Pine is among the "best sellers" and is a typical "shotgun prescription."
7. It is essential for progress in therapeutics that one drug be given at a time, accurate observation made and careful records kept.

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AN EPIDEMIC OF SCARLET FEVER

Edw. B. Oliver, M.D., Fort William.

Scarlet Fever in the City of Fort William until the year 1917 had run the ordinary course of this disease in a community the size of this city. Until the month of July of the year 1917, the disease was of the ordinary type, there having been reported until the end of June twenty-three cases, with two deaths. In July, the number of cases reported was ten, in August sixteen, and in September twenty-two. From the month of August, 1917, until the present writing the disease has been epidemic and has resisted all efforts that have been made to eliminate it.

After the state of affairs outlined above had been in existence for a year or more, the problem which the board of health of this city was trying to solve became a topic of conversation at many gatherings of health officers, both national and international. In this way, many opinions have been expressed with regard to the existing condition. But in spite of all light that can be brought to bear on it, the condition remains.

I wish to detail a history of the epidemic, an analysis of the cases and to outline the efforts that have been made to secure for this municipality freedom from the disease.

It might be pointed out here that in the year 1914 there were exactly the same number of cases of the disease as in 1917, viz.: 110 cases. There was no difficulty in dealing with the disease then, as is shown by the reports for the years 1915—18 cases, and 1916—4 cases. I was Medical Officer of Health in 1914, so that it was not due to any change in methods that the epidemic of 1917 and later years was not controlled.

CITY OF FORT WILLIAM, ONT.

Department of Health.

SCARLET FEVER STATISTICS

Month	Cases	Sex M.	Sex F.	Under 5 yrs	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40 yrs. & over	Recovered	Died	Age
1917.													
July...	10	4	6	3	5	2					9	1	7 yrs.
Aug...	16	6	10	8	6	1		1			16		
Sept...	36	15	21	6	25	5					36		
Oct...	22	12	10	6	9	3		1	3		22		
Nov...	26	14	12	9	13	3		1			26		
Dec....	28	18	10	9	9	5	2	2	1		28		
1918.													
Jan...	15	10	5	6	6	1	1		1		15		
Feb....	31	12	19	6	12	5	1	4	3		31		
Mar...	15	9	6	5	7	0	3				15		
Apr....	23	10	13	8	12	3	0				23		
May...	47	21	26	21	18	2	3	1	2		46	1	4 yrs.
June...	35	17	18	12	16	4	2	1			35		
July...	25	10	15	13	8	2	1	1			25		
Aug...	13	7	6	3	6	2	1	1			13		
Sept...	26	14	12	11	7	4	3		1		26		
Oct....	29	12	17	9	10	8	1		1		28	1	6 yrs.
Nov...	54	35	19	14	11	18	4	4	3		54		
Dec....	53	23	30	9	17	12	3	7	5		52	1	9 yrs.
1919.													
Jan....	60	24	36	11	24	18	5	1	1		60		
Feb....	58	26	32	11	25	12	4	4	1	1	58		
Mar...	45	21	24	9	27	6	1		2		45		
Apr....	34	17	17	5	20	5	1	1	2		34		
May...	18	7	11	3	11	2	1	1			18		
June...	10	3	7	1	3	3		1	2		10		
July...	5	2	3	1	2	1		1			5		
Aug...	18	7	11	6	10	1			1		18		
Sept...	19	11	8	4	8	4		3			19		
Oct....	35	13	22	9	14	7	1	4			35		
	806	380	426	218	341	139	38	40	29	1	802	4	

I shall first outline the procedure when a case is reported, then our procedure to locate unreported or missed cases.

When a physician or householder reports a case of the disease to the department of health, I go in person to the address given and fill out the following form:

REPORT OF A CASE OF SCARLET FEVER

Dr. Date

Family Name Address

Name of patient Age Sex

Date first ill Dr. called when Symptoms

Bus. or school address Teacher

Has there been other cases? When?

Action taken (isolated at home or hospital)

Toilet:	Water:	Milk:	Flies:
Pets:	Dogs:	Cats:	Birds:

Remarks:—(Other children's names and ages; adults in house and their occupations; probable source of infection?)

After eliciting this information, the other children in the home are looked over for possible missed cases. If any are found, they are dealt with in the same manner as the patient.

If the child goes to the hospital, the other children are placed under quarantine. I leave the following notice:—

WHAT TO DO WHEN A PATIENT HAS BEEN REMOVED FROM A ROOM IN A HOUSE TO THE HOSPITAL OR AT THE END OF ISOLATION.

1. Take all sheets, pillow cases, towels, napkins and other washable articles of clothing worn by the patient and put into a tub or pail of boiling water to which has been added two tablespoonfuls of carbolic acid, lysol or other antiseptic. Allow these to soak for 48 hours, then wash in the usual way separately from other washing.

2. Burn all toys, papers, books, etc., that can be spared.

3. Scrub with soap and water the floors, wainscoting, doors, bed frames and window casing.

4. Go over all floors, wainscoting, doors, bed frames, window casings, walls and ceiling with a damp cloth which has been soaked in some antiseptic solution as mentioned above.

5. Put all mattresses, pillows, and unwashable clothing worn by the patient out to air and sun for two successive days.

6. Thoroughly expose the room to sunlight and circulating air for two days before any person occupies it.

Next day the Sanitary Inspector calls and satisfies himself that these instructions have been carried out. He then fumigates the room with formalin. (I might say that this is by order of the board of health, as I personally have no faith in the value of fumigation in the ordinary room. I agree with Chapin that it misleads the public and gives a false sense of security and encourages people in the old belief that it is things, not persons, which are dangerous.)

The house is visited and any other children therein examined by a nurse at least three times during the following ten days, at the end of which time should no other cases develop they are released.

If the child remains at home, the house is visited in the same manner for ten days, and should no other cases develop, one visit is made weekly thereafter. The breadwinner is allowed to leave the house to attend to his regular duties if the child is properly isolated and the breadwinner does not handle food or clothing or have anything to do with children away from the house.

At the end of the period of isolation (six weeks), should there be no complications, the child is released. The day before the day of release, the nurse calls and critically examines the patient and orders the toilet of the case. She leaves the instruction card which I have before mentioned and the sanitary inspector acts as before. He leaves the following notice, after explaining to the householder the necessity for observing its directions.

Re Scarlet Fever.

Dear Sir or Madam:—

Inasmuch as six weeks' quarantine is at times not long enough to allow the patient to throw off the infection, I ask you to observe the following precautions for a period of at least two weeks:—

1. The child must sleep alone.
2. He should use only his own handkerchief or towel.
3. At table he should not drink from the same glass or cup or bite from the same piece of bread or cake as one who has not had the disease.
4. He should not be allowed to share with others an all-day sucker or piece of candy.
5. Great care should be taken to see that the child does not get a cold in the head by exposure to draughts or by getting his feet wet. Infection that lies dormant may be brought into activity by the lowering of the resistance due to a cold in the head.
6. Allow no children from other houses to enter yours nor your child who has had the disease to enter any other, until at least the two weeks have elapsed.
7. In any case of doubt as to what to do, phone S. 1216 and full explanation will be given.
8. Certificate to re-enter school will be granted only on inspection of the child, and will not be given until the two weeks have expired.

Two weeks later the nurse sees the child and if it is in good health, a school certificate is issued. Should the child then return to school, the school nurse pays particular attention to the nose, ears, glands, etc., of this child, as will be seen later.

At the hospital, the child is attended by its own physician and is seen at least twice weekly by myself. No patient is dismissed from the hospital until perfectly well, and in no case before six weeks from the incidence of the disease. I see all cases personally before they leave the hospital. Before the child goes home, the notice re modified quarantine for two weeks is given the parent and the child seen by the nurse before returning to school.

PREVENTIVE MEASURES.

Children at school are examined by school nurses at least twice weekly. Should any scarlet suspect be found, the case is sent home and seen by the family physician or myself. Children who have returned after having had scar-

let fever are especially looked after for late complications, and if any are found, are at once sent home and kept there till well.

Nurses call at schools twice weekly and get lists of all absentees and visit them in their homes. Should they find any suspects, they are referred to the family physician or myself.

Should three cases occur in any school room, I personally visit the room and examine all pupils. In this connection there are two interesting experiences to record. In one room where there had been four cases, two examinations at each of which half a dozen pupils had been excluded failed to stop the incidence of the disease. Finally I closed the room for ten full days. The pupils reassembled on a Monday. There was a case on Friday, one on Saturday and one on Sunday. I then dismissed the pupils again for three weeks and had no more cases. My conclusion was that there must have been an undetected carrier.

In another room there had been four cases within three weeks. Dr. W. E. George, Provincial District Officer of Health, happened to be in the city at this time and I asked him to go with me to this room. In the course of the examination, Dr. George discovered a case, and turning to me said, "That is what I call a typical carrier throat." He had never seen the boy before. On asking the boy's name from the teacher, I found that his sister had been in the hospital over three weeks with scarlet fever. The boy had spent his ten days in quarantine and had been re-admitted to school. Yet a few days after his sister returned from the isolation hospital, this boy developed a typical scarlet fever.

The statistical chart shows that, commencing November, 1918, and ending March, 1919, there was a distinct increase in the number of cases. This was due to the influenza epidemic. One peculiar feature of the scarlet fever epidemic has been that in St. Joseph's Boarding School, where there are over one hundred children, there has been no scarlet fever except during the flu epidemic. There were one hundred cases of flu at the boarding school, thirteen of whom developed scarlet. Nine patients at the General Hospital developed scarlet fever during the flu epidemic.

The flu left us in March. After that scarlet fever went back to its monotonous level.

There has been a constant undercurrent of public opinion that the methods used in the endeavor to control the disease were not proper. A woman's organization approached the board of health to suggest that more fumigation should be practised, and particularly to request that more "good old brimstone" should be used. Their agitation resulted in the displacing of the displacable members of the board of health by three new members. This new board of health ordered the fumigation of all school rooms after a case of the disease. That has been done during the past year.

The physicians of the city were restless, too, so I called them together and endeavored to explain what I thought was the cause of the continuance of the epidemic. They listened fairly attentively, but were not convinced. It was not

until Dr. W. E. George came to the city and addressed them that they were willing to admit it might be persons and not things who were the cause of the continuance of the epidemic.

During November, 1919, a staff of thirteen nurses made house to house calls throughout the city. They located seven cases. Inasmuch as absentees from school were not visited at this time, three of these cases would have been found by the regular method of visiting school absentees. To two others a physician had already been called, but had not arrived, so there were in reality but two cases whose discovery was due to the change.

There has been great difficulty in many cases in making a diagnosis. In fact, the situation has become such that there are many cases in which a definite diagnosis cannot be made.

There have been five cases in which the patient has had the disease twice, all regularly reported, as shown by our records, and all absolutely proven except one case.

I have made a further analysis of the cases under the following heads:—

1. Houses in which other cases were reported within ten days, first case at hospital. 51
2. Houses in which other cases were reported within ten days, first case at home 97
3. Return cases after patient was released from isolation at home..... 3
4. Return cases after patient was released from hospital 27

Thus it is shown that the incidence of the disease is only half after the hospitalization of a first case what it is if a case remains at home.

The large number of return cases I account for in this way: The Isolation Hospital has two large wards. A child about to leave cannot effectually be isolated from others who have a nasal discharge, and thus at times they are reinfected, although no evidence of reinfection can be seen.

CONCLUSIONS.

1. The epidemic has been unchecked on account of the mild type of the disease and the great difficulty in many cases of making a diagnosis;

2. The mildness of the disease, as shown by the death rate of less than one-quarter of one per cent. during the year 1919. Of course, that showing is partly due to the excellent work done at our Isolation Hospital;

3. The persistence of the infecting agent being such that it is impossible to tell when a case has ceased to be infective, and might suggest that eight weeks instead of six be the minimum period of quarantine;

4. The number of people who are congratulating themselves that they can have their children get scarlet fever and "get it over with while the epidemic is mild." This, too, among the people who are ordinarily classed as intelligent;

5. Carriers as shown by the school cases mentioned above.

THE INDUCTION OF LABOR WITH PITUITARY EXTRACT

J. Gordon Gallie, B.A., M.B.
and
W. A. Scott, B.A., MB.
Junior Assistants in Obstetrics and Gynæcology, Toronto General Hospital.

In this preliminary report of our work on the induction of labor with pituitary extract we do not propose to discuss at length the various indications for the induction of labor. We shall enumerate the various reasons which, to our minds, were indications for starting labor, but the essential thesis that we wish to bring forward to-night is, given the indication, near, at, or past term, we have here an easy, successful and safe method. The directions for the use of the drug issued by various pharmaceutical firms always state that the pituitary extract should not be given until the second stage of labor has begun. There have been a few papers published on the use of pituitary in abortions and to induce premature labor, but in none of these does there seem to have been any marked success. On the other hand, we know that for some time it has been used in occasional cases by various men, who wished to induce labor at or past term, one of the earliest to advocate its use for the induction of labor being Dr. B. P. Watson in a paper published in September, 1913. Our results have been so successful that we feel a report might be of interest.

METHOD.

We have obtained the best and most uniform results by the use of the preparation put up by Burroughs, Wellcome & Co., but there are a few points in the administration requiring attention. A glass barrel syringe should be used, so that one knows exactly how much of the drug the patient is getting. The needle should be 2½ to 3 inches in length, and the drug driven deeply into the muscle of the thigh or back and not just under the skin. If the syringe and needle have been sterilized with alcohol, care should be exercised to see that all the alcohol is expelled before the pituitary is drawn up. The initial dose is ½ C.C. and this is repeated every half hour until a result is obtained. By results we mean regular uterine contractions with or without pain. Once these contractions commence no more is given so long as they continue at frequent intervals. If, however, they begin to die away, the dose is at once repeated. We feel that just here lies the secret of success or failure. If the contractions are allowed to entirely cease, the whole process has to be repeated. With proper

observation, so that the drug is given before the uterus has stopped contracting from the previous dose, most patients will eventually come into normal labor.

RESULTS.

The results that we give in this report are those for private patients alone. We give the total of every case in which we attempted to start labor by this method, and exclude all cases in which the patient was already in labor. Being private cases, the method has been under our personal supervision in every instance.

Total number of cases—65.
Successful in—55.
No result in—3.
Bag or bougies inserted later—7.

Let us now consider the 55 successful cases.

1. The reasons for induction were as follows:—
   Albuminuria and other evidences of pre-eclamptic toxæmia—7.
   Relatively large child—11.
   R.O.P. at term—2.
   Rupture of membrane without pains—3.
   Placenta prævia—1.
   Because patient was at or past term—31.

2. Time of induction:—
   Before term—12. The earliest date 28 days; also one at 26 and one at 23 days before full term.
   At term—18.
   After term (from 2 to 21 days)—25 cases.

3. Number of doses:—
   Largest number—7.
   Smallest number—1.
   Average number of doses—3.

4. Type of delivery:—
   Normal delivery—45.
   Forceps—9.
   Versions—1.

5. Length of labor. Estimated from the onset of contractions, not necessarily from the first dose:—
   Longest labor—42 hours.
   Shortest—45 minutes.
   Average—just under 7 hours.

6. Condition of baby:—

Born living—56 (one case of twins). This also includes one case of placenta prævia, 5 cases of albuminuria and one version for a R.O.P. One child died in 28 hours from fœtal atelectasis with a terminal pneumonia. There were no cases of hæmorrhage or other ill effects to mother or baby.

Let us now consider the 10 unsuccessful cases. Five of these are considered to have been given a thorough trial of the method properly carried out, and were absolute failures. Five cases were early in our series, and we feel that the method was stopped too soon. Seven of these 10 cases were subsequently induced with a bag or bougies and there were two dead children in this series, one dying a week before the attempt at induction from an intra-uterine knot in the cord, and the other dying during delivery for placenta prævia.

ADVANTAGES.

1. There is no instrumentation, and consequently less liability to sepsis. This is of special importance in cases where one wishes to give the patient a "trial of labor," but in whom it is felt that a Cæsarean Section may be necessary. The introduction of a bag absolutely prohibits a subsequent section, but if labor can be started by the injection of pituitary, a section may be as safely performed as if the patient had come into labor naturally.

2. There is no anæsthetic required and the induction may even be started at home.

3. Lastly, there is less reluctance on the part of the patient and her relatives to simply have a few "hypodermic" injections given than there is to submitting to the introduction of a bag.

There are a few special indications where the method is of particular value. In placenta prævia of the lateral or marginal type, starting labor with pituitary, either with or without rupture of the membranes, may be all that is required. In cases of pre-eclamptic toxæmia it also has particular value, since these patients are so prone to become infected under any mechanical manipulations. In those cases where there is rupture of the membranes without the onset of labour pituitary is very efficient. Lastly, in cases at or past the estimated date of confinement, where there is a normal sized or large child, this method provides a convenient and safe means of overcoming a source of worry to both patient and obstetrician. Once the estimated date is past the patient becomes anxious, especially if it be her first baby; moreover, if the child be large the obstetrician feels that he would be glad to see labour begin. In such cases pituitary provides the ideal method to use.

Conclusions

We feel that we might summarize our conclusions as follows:—

1. We have here a safe method for the induction of labour which is successful in a large proportion of cases.

2. It is more successful at, or past, term than it is before term.

3. It is possible in some cases, however, to induce labour as early as the end of the eighth month with the use of this drug.

4. In cases where the induction of labour is indicated this is the method of choice. If it fails, mechanical methods may still be used.

5. In order to be successful it must be properly carried out. This means absolutely specific instructions to a competent nurse, or else personal supervision.

Canadian Medical Association

ANNUAL MEETING

VANCOUVER

June 22nd, 23rd, 24th, 25th, 1920

Judging from the Preliminary Programme announced by the Canadian Medical Association for the next Annual Meeting, which is to be held in Vancouver during the above dates, members of the profession attending are assured of very interesting and profitable sessions.

It is gratifying to note that practitioners listed to participate represent all sections of the Dominion.

It is earnestly hoped that large numbers of the profession in the Eastern provinces will avail themselves of a delightful trip to the Coast and help to make the Annual Meeting an unqualified success.

HALLUX VALGUS*

Hervey L. Jackes, M.B., Regina, Saskatchewan

This morning I wish to present a case and explain to you a rather new method for the surgical treatment of an apparently simple and only too common condition—Hallux Valgus—a condition one often sees even after an attempted cure, in a really much worse condition as far as actual use of the foot is concerned than previous to operation.

The method is one we made use of while overseas, and is in my opinion absolutely "fool-proof," chiefly because it is figured out on a mathematical basis.

Hallux Valgus is a deformity of the great toe. It is a sub-luxation of the great toe outwards at the meta-tarsal phalangeal joint. The head of the bone is inclined obliquely outwards to an angle varying from 30 to 90 degrees, and as the great toe tends to take up this foreign position the deformity tends to become increased by the contracting action of the extensor longus hallucis tendon.

As the deformity increases the internal lateral ligament of the joint becomes stretched. The inner side of the metatarsus becomes uncovered and eventually eroded, causing degeneration of the cartilage and the formation of an exostosis, a hard callus forms on the skin over the bursa, which frequently becomes inflamed. The inflammation may spread to the bursa beneath and ultimately invade the joint.

Causes of Hallux Valgus are:—

1. Ill-fitting boots.
2. Rheumatic gouty factor.
3. Secondary to flat feet.

Symptoms:—

1. Pain.
2. Prominence of the metatarsal phalangeal joint with displacement of the great toe outward, either crowding or becoming displaced over or under the next toe.
3. Redness and thickening of the skin over the joint.

The treatment of this condition naturally divides itself under two heads:—

1. Palliative.
2. Operative.

Palliative.—If the condition is discovered early enough a cure may be obtained by removing the cause, such as:—

*Read at Meeting of the Saskatchewan Medical Association, 1919.

1. Wearing of proper fitting and made boots.
2. Splinting of the toe to correct minor deformity.
3. Wearing pads to protect the joint.
4. Treating the conditions of which it is the secondary condition, such as flat feet and gouty rheumatic factor.

If these palliative measures fail, as they often do, we must resort to surgical interference, and the first methods mentioned I mention chiefly to condemn.

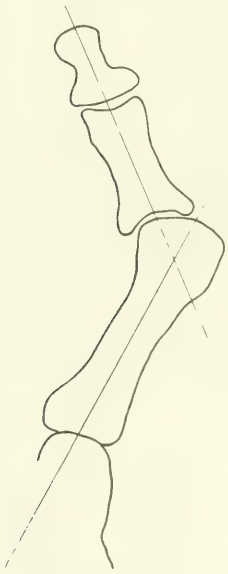
I. Resection of the head of the metatarsal bone—arthoplasty. (See plate 1.)

II. Resection of the entire joint.

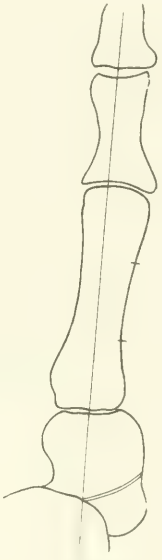
III. Transplantation of the tendon of the extensor hallucis longus to the inner aspect of the toe.

The above methods all have their advocates, and in a small percentage of cases good results have been obtained, but more often the result is either an ankylosed joint or a flail joint, and the result is as bad, if not worse, than the original condition.

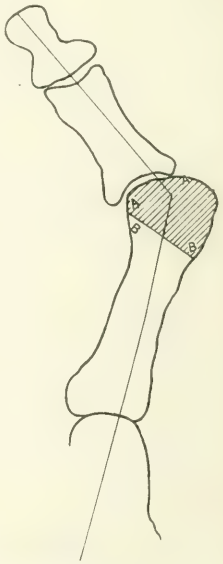
The operation of choice, which I will now describe, is that of removing a wedge of bone from the metatarsus without interfering with the joint. The idea is probably old, but it is the method used by correctly figuring out the required wedge that leads me to put it forward.



Cut I.
Showing angulation.



Cut II.
The normal toe.



Cut III.
Showing angulation, with part for resection shaded.

A radiograph is first made of the foot, and from this I make a true tracing of the individual Hallux Valgus (Cut 1), and from this tracing I make what we will call a cardboard toe.

Now, if you compare this tracing, Cut I. with Cut II., which is the tracing taken from a normal foot, the actual deformity is easily appreciated. Also that a line drawn through the centre of the normal tracing is a straight line, whilst a line drawn through the centres of the bones in the abnormal foot makes considerable of an angle. Therefore to have the operation a success, one should endeavour to make the abnormal toe assume its original straight alignment.

PLATE I

Hallux Valgus treated by removal of head of bone. Result, a frail, useless joint and excessive shortening of great toe.

The first cut on the cardboard toe will then be on the metatarsus, just below the head of the bone, far enough back to preserve the joint surface. This is not a complete cut, but stops ⅛ inch from the outer border. Now by swinging the distal end of the cardboard toe inwards the distal part is made to overlap the proximal until the toe assumes a straight alignment (Cut III.), and the shaded part that has been caused by the overlapping will be the exact wedge of bone that will be required to be removed in this particular case. I then measure the

base of this wedge with calipers, which are set and put in with my other instruments, and at the operation I know the measurement of the base of the wedge that I will be required to remove.

PLATE II.

Hallux Valgus previous to operation.

Operation.—An eliptical incision on the inner surface of the great toe is made, about two inches long, with the bunion at its centre. As much of the callus as is possible is included in this incision and removed.

Next the bursa and capsule are incised and the bone exposed. Usually the exostosis will present, and it is advisable to remove it with a saw.

My first saw cut is then made just below the head of the bone, being careful to preserve the joint surface. I then take my calipers and measure down from this first cut, and this point gives me the start for my second cut to meet the first cut, just ⅛ inch from the outer surface of the bone. The wedge of bone made by these two saw cuts is then removed.

PLATE III.

Hallux Valgus after removal of wedge. Alignment is perfect.

A small hole is then bored in the cut edges of the outside angles of the wedge and a chromic suture threaded through. The cut edges of the bone are now carefully approximated and the suture tied, holding the two pieces in close apposition.

The next step is to do a tenotomy on the tendon of the extensor longus hallucis. The capsule and bursa are then sutured with fine catgut, and the skin with silk worm.

A special splint is then applied, made of a wooden tongue depressor padded to fit the instep, and held to the toe with adhesive. The splint is so made that it will slightly adduct the toe.

The toe is left alone for ten days, when the splint is removed, sutures taken out, and the toe is moved very gently to prevent the formation of adhesions. This is done each week.

The splint should be kept on for three weeks, and in four weeks the patient can be allowed to walk. When this stage is reached it is necessary to have the boot prepared as follows:—

A lift ¼-inch must be placed along the inner surface of the boot and a leather strip ¾-inch wide and 1/3-inch thick is placed on the sole just under the heads of the metatarsal bones. This supports the head of the metatarsals and throws the weight outward.

And so, while healing is being completed, prevents by removing the irritation the chance of painful exostosis forming until the toe has assumed its normal function.

HEARD ABOUT DR. JOHN BLANK

Very poor business man.

Rarely makes a wise investment.

Occasionally answers a letter if it has a direct bearing on his own interests.

Never participates in a meeting, but is a past master at picking to pieces the efforts of other men.

Strong believer in the axiom "Let George do it."

Full of criticisms, usually destructive, rarely constructive.

Of course, it is hardly necessary to add that Dr. John Blank does not live in Canada!

CHRONIC TRENCH FEVER

Robert Dawson Rudolf, M.D. (Edin.), F.R.C.P. (Lond.), Toronto.

Trench fever has for some time now been a recognized disease in the army. So many cases, indeed, were diagnosed as such that the term almost displaced the old military one of "P.U.O." (pyrexia of unknown origin). Probably in most cases this was a correct diagnosis, as trench fever was undoubtedly the most common infection at the various fronts.

McNee (British Med. Journal, 1916, I. 225) originally described two forms of the disease: a "short" and a "long" one, and the British Trench Fever Commission (British Med. Jour., Jan. 19, 1918, page 91), three forms. The American Trench Fever Commission very properly called attention to the difficulty of making all cases fit into these or any definite classes. The intermittent (spiked) type of the disease (McNee's "long" type) is very characteristic and can scarcely be taken for anything else, but many of the other forms cannot be diagnosed clinically from the mere inspection of the temperature charts.

A. Pagenstecker (Deutsche Med. Wchnschr. Berl. u. Leip., 1918, 44, 235-6) described four irregular types, as follows:

1. The majority of cases. The febrile bouts occur at intervals of two to five days and extend over several weeks: the initial rise of 102° or higher is almost always followed by a critical fall on the next day, and then an apyrexial period, with some slight irregularities, supervenes until the next bout of fever. The height the temperature reaches is always less than the previous one.

2. Resembles the first form, except that the temperature takes some days to fall by crisis.

3. The temperature suddenly runs up to 104° or more, at a time when the individual feels perfectly well. Next day there is a fall of temperature with profuse sweating. In the majority of these cases the blood is examined for the malarial organism, with negative results.

4. With continued fever, always below 100.5°, lasting for weeks or months, and with marked subjective symptoms of trench fever.

It is this fourth type that one sees so much of in convalescent camps and among men of low category, and it is the one that after the war is the most important to recognize. On account of its resemblance to chronic malaria, the writer ventured some months ago to refer to it as trench fever cachexia (Lancet, Dec. 14, 1918, p. 809). For months, and even years, the patients remain in a low state of health, with slight occasional or constant elevations of temperature,

often with an enlarged spleen and some anæmia, and nearly always with pains in the shins and various parts of the body.

The American Trench Fever Commission wrote as follows: "Failure to recognize the persistence of the infection has led to a disregard of slight fever, such as 99° to 99.5°. In most hospitals the temperature is neither taken every four hours nor frequently enough to detect short relapses. The pulse rate, although taken, is often not recorded. No doubt every medical officer who has had much experience at the base hospitals has been struck by the number of patients who give a history of a previous illness, which was probably trench fever, and who at the time of examination showed tachycardia, slight pyrexia and some other slight symptoms of trench fever, all these probably pointing to a continuance of the infection." It is to this very common chronic form of the disease that we may give the name of Trench Fever Cachexia.

We do not yet know how long these cachectic cases may last. Colonel A. B. Soltau (Lancet, Dec. 28th, 1918, page 893) speaks of having followed them for four years. He refers to them as the "smouldering" type of the disease, and says that after a man has had an acute attack, "the infection has smouldered on, causing debility and accompanied by an irregular temperature, occasionally running up to 100° at night, but always down in the morning. It is this type of case that is so commonly diagnosed as 'myalgia,' whereas true myalgia is exceedingly uncommon. Only careful examination of the temperature curve, and the type of the pain, will enable a correct diagnosis to be arrived at."

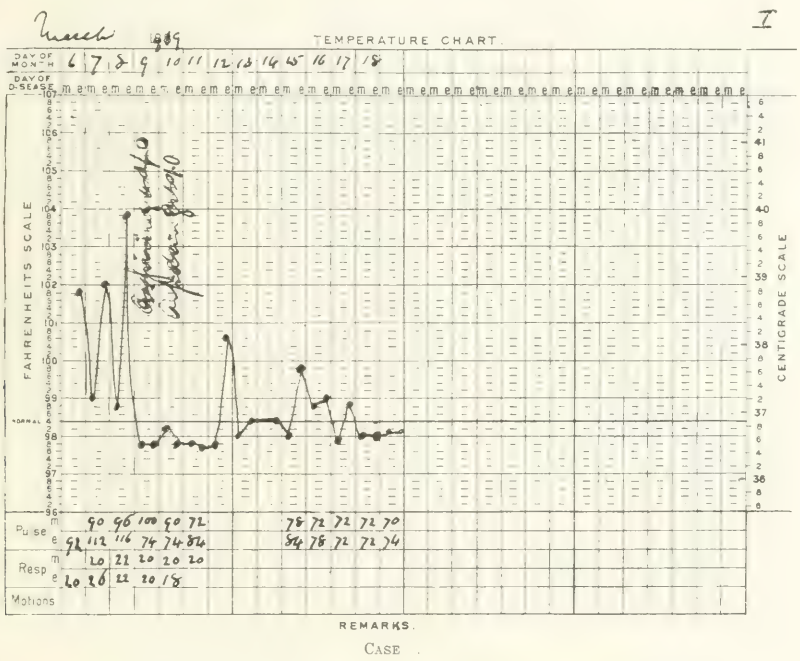
At one of our special hospitals in England devoted to the care of myalgic cases, I had the temperatures of all the patients taken very carefully, and found that about 15% of these were slightly elevated at some time in the 24 hours, and examination of the patients showed that probably most of them were examples of trench fever cachexia. At another hospital for "D.A.H." cases, quite as large a percentage of the patients showed some fever. It may be remembered that the Report of the Military Heart Hospital, at Hampstead, showed that many of their D.A.H. cases had slight fever. The probabilities are now that many of these cases were examples of still present trench fever infection.

If the temperatures of soldiers at convalescent hospitals and in low category work, who are complaining of debility, pains in various parts of the body (especially the shins), and of the "effort syndrome" be taken, it is surprising how often slight degrees of fever will be detected. Many of these men have been away from the front for over a year, but have never felt well, and their "medical history sheets" usually show that they have been admitted to hospital again and again since reaching England. Many have been invalided out of the army under such diagnoses as "debility," "anæmia," "D.A.H." and "myalgia." Some of them would return to homes where the body louse is a regular inhabitant, and no doubt the disease will thus be spread among the civil population. Major Byam, of the Hampstead Trench Fever Commission, found that lice

could be infected from chronic cases of as long as 443 days standing. Already cases are occurring in our camp in England amongst men who have never been abroad, but who have been quartered with returned soldiers. Case 1 is an example of this. It is that of an officer who had served in a rest camp among soldiers who had returned from France. The officer himself had not been at any front and had recently come from Canada. He had on several occasions found lice on his clothes.

Case 1.

Captain H. Suffering from fever and pains in head and shins. Had never been in France or at any front, but on several occasions had been lousy. (See Case 7.)



Types of Chronic Trench Fever. Chronic trench fever may present several different forms of temperature curves, as follows:

I. Continued slight fever.

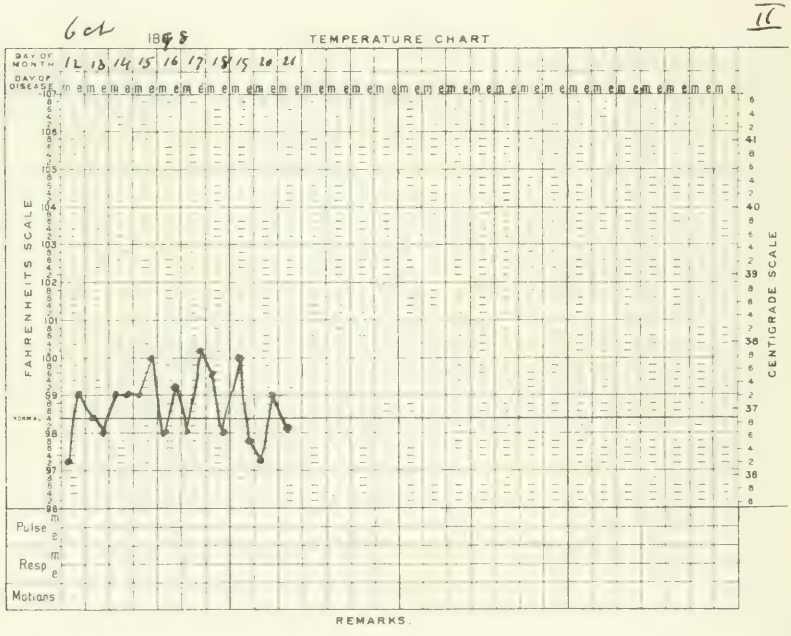
II. Occasional bouts of fever.

III. The afebrile type: (a) Showing symptoms of trench fever, but with no alteration in the temperature curve; (b) showing a swinging temperature curve.

I. This common type shows an almost continual elevation of temperature. The whole curve is set a degree or two too high. Cases 2, 3, 4, and 5 illustrate this type, and every clinician of military experience can duplicate such charts indefinitely.

Case 2.

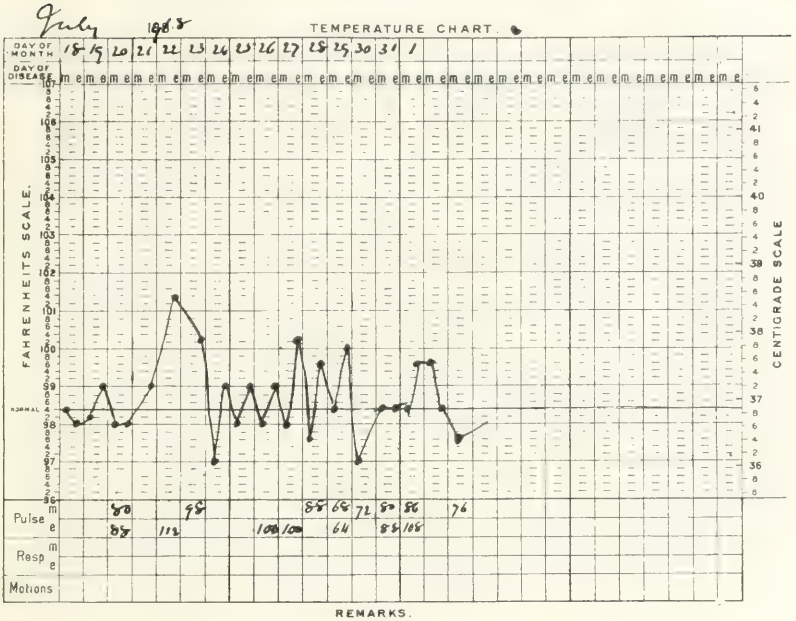
Private A. This man was invalided from France a year ago as a case of trench fever. He had been poorly for several weeks before leaving that country. Has been feeling out of sorts ever since, with aching shins and shortness of breath on exertion. His medical history sheet shows that he has been in various hospitals and has always had slight fever. The chart illustrates the slight chronic type of fever.



Case II.

Case 4.

Private H. Was invalided from France on May 23rd (i.e., over 3 months ago) and had been feeling ill for several days before he "went sick." Since reaching England has been poorly, with headache and aching shins and back, all the pains worse at night. No local condition found to account for his pains. Temperature has been running as in chart ever since his arrival in England over three months ago.



CASE IV.

Case 5.

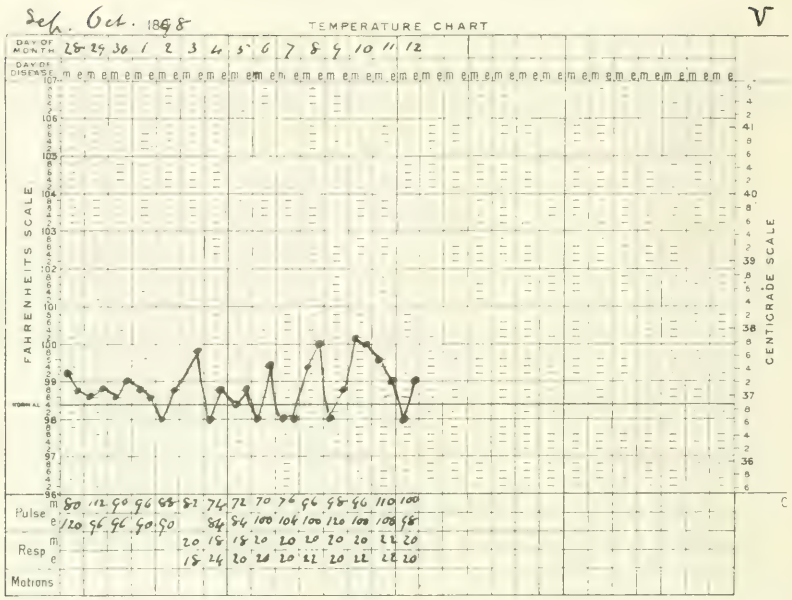
Private S. Took ill in France on July 28th (2 months ago), and was invalided to England as "trench fever." Since then, until the time that this chart was made, had felt poorly with aching shins. Temperature was up on the average about 2 degrees, with no definite intermissions. No local cause for the pain in the tibiæ could be found.

Patients showing a little fever are studied for such conditions as tuberculosis, various sources of sepsis or toxæmia, etc., but many show no such cause for their fever, and when the special symptoms of trench fever are looked for, frequently are found to be examples of this infection.

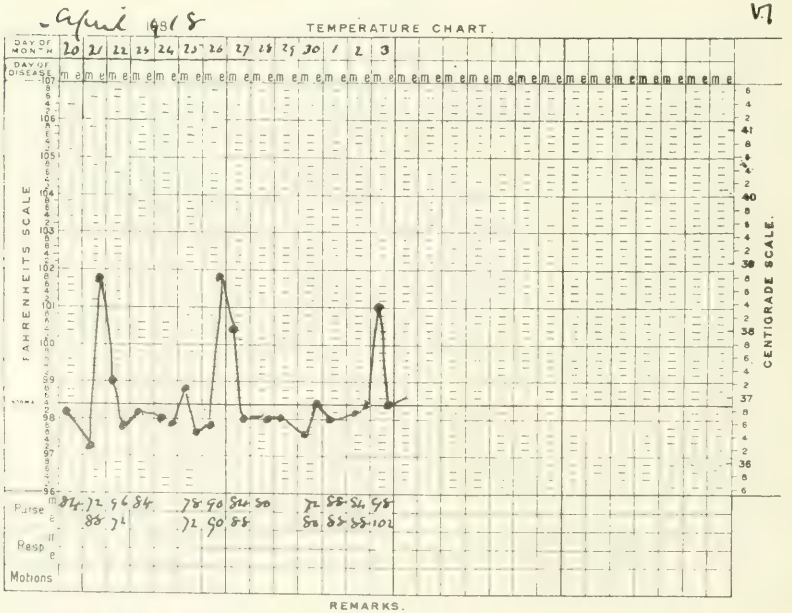
II. Occasional fever with periods of normal temperature. Some of the long continued "spiked" cases might be put into this class, although they may more properly be considered as acute relapses of the disease. Case 6 is an example of this:

Case 6.

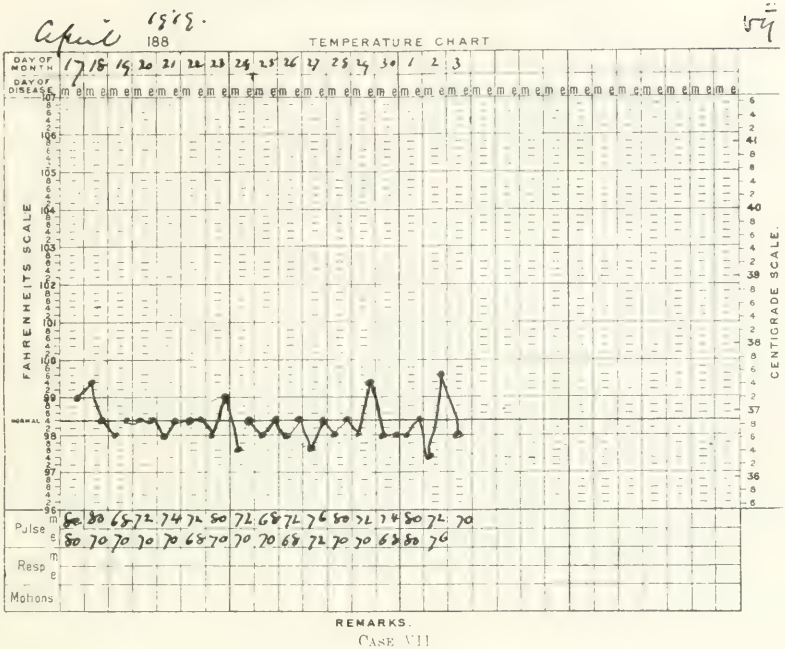
Private M. was invalided from France the day before this chart commences, but had been "sick" for some weeks with recurring attacks of fever. The chart shows the typical "spiked type" of trench fever. It is the "long type" of McNee. But there are chronic cases which show the same rhythmical periodicity, although the rise on each occasion is very slight. Case 7 is an illustration of this. The chart is from the same patient as Case 1, but months after the acute condition was over.



Case V.



Case VI.



Case 7.

Captain H. This chart is from the same patient as Case I, only illustrates his condition several months later. It shows slight rhythmical rises in temperature, and the patient can always tell when these are going to occur from a headache and slackness. (See Case 1.)

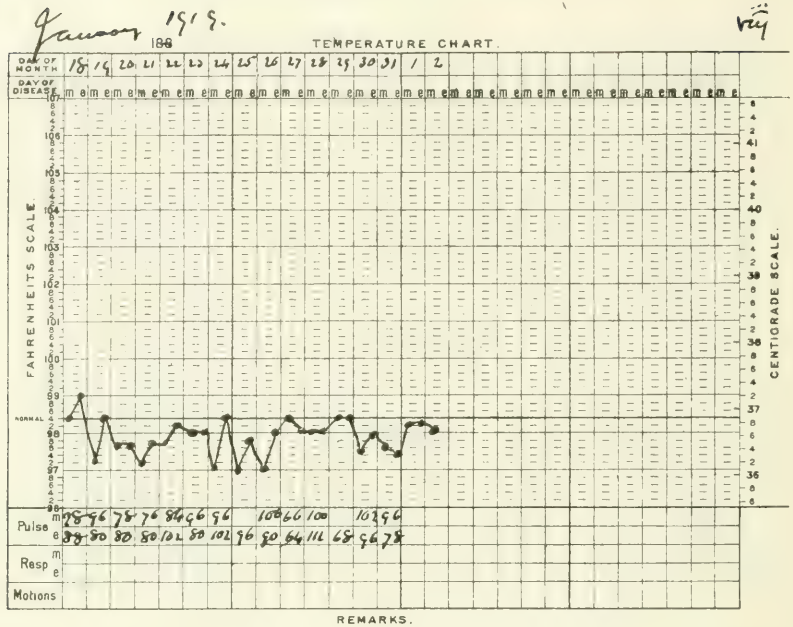
III. This class might be called the afebrile type of trench fever, and there are two distinct sub-divisions of it:

(a) In one there is no disturbance of temperature, but the patient has had the acute infection and still is suffering from the pains and other symptoms. Such a case may at any time show an exacerbation. Case 8 is an example of this. The man had recently had an acute attack, was now afebrile, but full of pains, and soon after this chart ends was once more febrile, due to a relapse.

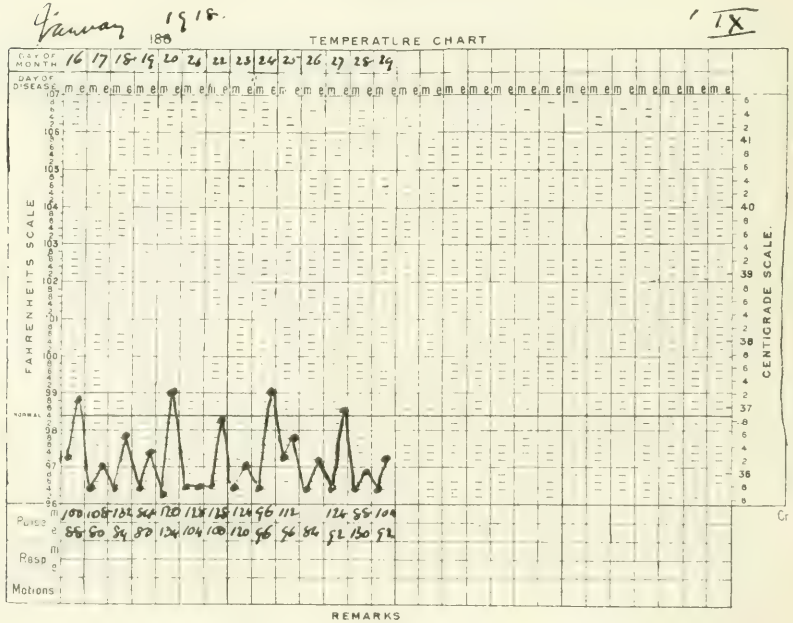
Case 8.

Private L. This man has recently had an acute attack of trench fever. At the time that this chart illustrates was afebrile, but full of pains and very limp. A day or two later he had a severe relapse.

(b) Several writers have called attention to a type of trench fever in which the temperature curve seldom rises above the normal line, but is peculiar in that it swings several degrees between morning and night, being perhaps 95° in the morning and 98° or 99° at night. Case 9 shows this form of curve.



Case VIII.



Case IX.

Case 9.

Private A. This patient was invalided from France several months ago with trench fever and has been poorly ever since, with anæmia and aching shins. His chart shows the type of chronic disease when the temperature swings greatly, but is seldom above the normal.

Symptoms. Apart from the pyrexia, the most characteristic symptoms of trench fever are pains in various parts of the body; palpitation and other signs of the "effort syndrome"; general malaise and debility, and certain special symptoms as described below:—

1. *Pains.* Next to the fever the pains are the most characteristic symptom of this disease. At the onset headache is practically constant and is often severe, and is even suggestive of meningitis. It may be generalized or occipital. It tends to recur with each relapse, but not to the same degree as at first. The head is often peculiarly tender, especially in the supraorbital region, and the eyes ache.

Lumbar pain comes next in frequency and resembles lumbago, and there may be much tenderness in that region.

Pains may occur anywhere in the extremities, but are so common in the shins that the disease has been called "shin fever," or "gaiter fever." In my experience this is the commonest form of pain, and it is accompanied by very great tenderness along the outer edge of the tibia. Occasionally one sees this tenderness so great that the patient begs that the bed clothes may be kept off his limbs by a guard. On rare occasions one sees some swelling, and even œdema of the tissues over the painful shins. I have notes of one case in which this was noted during several relapses.

Pathology. The exact pathology of the condition is not known. It has been attributed to a periostitis, and some writers have described microscopic changes in portions of the tibial periosteum removed for examination.

"To decide the question whether objective changes are to be found in the tibiæ in trench fever and other febrile diseases associated with tibialgia, and whether such changes are due to the disease, or whether they were present before, Burchard (Med. Klin., Berl. u. Wien., 1918, 14, 810-812) made an X-ray examination of a number of cases of trench fever and other conditions. Of 32 cases of pure quintan fever, 22 had well marked spontaneous pains in the tibiæ; three complained of pain on pressure only; six had diffuse pain in the legs, and only one had no pain whatever in the legs. In almost all these cases the X-rays showed a more or less well marked periostitis in the diaphyses of the tibiæ, less frequently in the fibulæ, and occasionally also in the bones of the forearm. The severity of the pain was by no means always in proportion to the periostitis present. The patients complained of severe pain when there were little or no changes visible, and on the other hand, a patient in whom definite periosteal changes were present did not complain at all. The skiagrams showed that the periosteum alone was affected. Similar lesions were found in 14 cases of trench

fever with an atypical temperature chart. An examination was then made of 37 soldiers who had been sent to the X-ray department for wounds or diseases unconnected with pains in the legs, and in about half the cases identical changes were found in the periosteum. A comparison of the three groups of cases showed a striking frequency of periosteal changes in quintan fever and other febrile diseases accompanied by tibialgia. On the other hand, the skiagrams did not show anything characteristic, so that the supposition that periostitis was a consequence of the infectious disease was improbable. Burchard thinks it much more probable that the periostitis had been in existence before, and that the pain was due to the supervention of the infectious disease." (Medical Supplement, Nov. 1st, 1918.)

J. Plesch (Samml. klin. Vortr., Leipz, 1918, Nr. 745-6, Inn. Med., Nr. 251-2) protested against the view held by many that shin pains was a *sine qua non* for the diagnosis of trench fever. He thought that probably marching with heavy kits made the tibia a *locus minoris resistentiae*, and any affection such as influenza, enteric, malaria, relapsing fever, or gonorrhœa, may cause pain here. He confirmed Queckenstett's observations that such pains often followed vaccination for enteric, smallpox or cholera.

Nevertheless, I think that few clinicians of experience will now deny that the shin pains are peculiarly common and agonizing in trench fever,—more so, indeed, than in any other infection.

The pains are nearly always worse at night, and are described variously as aching, burning, dragging, etc.

I quite agree with the above writers that the probable reason why the shins are so often attacked is that the heavy marching has caused some fibrositis here, and then the infection or toxæmia attacks this damaged area. In support of this view one may quote the fact that trench fever patients constantly tell us that they get pain in any old wound site, fracture or strained joint or tissue. In the late stages these cases are often diagnosed as "myalgia." Captains Chevasse and Marr (letter of Col. Soltau, Lancet, Dec. 28th, 1918, page 893) independently examined many cases of "myalgia," and the former believed that 43% were really trench fever, and the latter 70%, and Col. Soltau would put the figure as high as 80%. As already stated, I found that 15% of very late cases of myalgia studied in England were probably of this nature, and even still had some fever.

Some writers believe, however, that the pains are rather of central than peripheral origin. Thus Professor Sims Woodhead (Brit. Med. Jour., May 25th, 1918, page 592) considers them as being referred and due to excitation of nerve cells in the spinal cord.

2. *Circulatory Symptoms.* During the fever the pulse rises in proportion to the temperature. Accurate watching of the heart in this state of the disease often reveals a temporary displacement of the apex to the left. Such may be seen in any infection, and there is no evidence that the virus of trench fever in any way specially attacks the heart muscle or its membranes.

But functional disturbance of the heart is very common after trench fever. In an inquiry into the cardiac manifestations of the disease, J. Fischer (Munchen, med. Wochenschr, 1918, 65, 73-5) found that among 807 patients, 8% complained of symptoms, such as pain and oppression in the left side of the chest, palpitation and dyspnœa, and that all these patients had objective signs, such as rapid pulse, a raised blood pressure (up to but not beyond 160 mm. Hg.), arrhythmia, mainly respiratory, slight cardiac enlargement, and a systolic murmur at the apex or over the pulmonary artery. Patients never showed the acute cardiac failure or vasomotor paralysis seen in other acute infections. Further, the arrhythmia was never of a type to justify a diagnosis of myocarditis. He thought the cardiac disturbances were not myocardial, but nervous. They occurred in patients of weakly and poor muscular development, and predisposition was probably a factor in their development. Fortunately trench fever is not a fatal illness, and hence we have no *post mortem* evidence of the actual state of the heart muscle, but clinically the condition is suggestive rather of a nervous than of an organic nature.

Again, it must be remembered that trench fever is the commonest of all infections at the front, and hence many cases of "D.A.H." will naturally give a history of it. The American Trench Fever Commission, in their experimental work, selected only men of fine physique, and in no instance did they find that any "D.A.H." occurred after the infection was over. Occasionally the syndrome was defected, but it was always found that the infection was still present, and when this finally disappeared so did the circulatory symptoms. It should be noted in this relation that the staff of the special heart hospital at Colchester report that slight fever is often present in trench fever. "D.A.H." is probably cardiac neurasthenia, and it is easy to see how such would be intensified by any infection, and hence we get the history of it so commonly dating from the commonest of all infection, i.e., trench fever. Further, a careful inquiry nearly always shows that the circulatory symptoms preceded the fever and were only intensified by it.

But one would like to repeat that trench fever is often a very chronic condition, and to express the opinion that many cases of "D.A.H." are examples of a still present infection. This is very important, for such cases require rest rather than exercise as long as any activity is present.

3. While the chronic infection is present, the patients suffer from general malaise and debility. They are weak and below *par*, and easily tired. Their complaints are of being "done up," that their "nerves are all gone," and of "depression." Major J. H. Lloyd (Lancet, May 10th, 1919, page 791) found that 50 out of 400 cases of "N.Y.D.N." were clear examples of trench fever.

4. *Blood.* The blood picture is variable, but usually there is a moderate leucocytosis during the fever. According to H. Perkins and R. H. Urwick (Quart. Jour. of Med., July, 1918), who made a special study of the hæmotology of the disease, there is a marked rise in the leucocytes of all kinds at the time of

the febrile relapse, and a gradual relative rise in the lymphocytes during convalescence. The American Trench Fever Commission found the extreme ranges of the white count was from 3,400-27,000, and a majority of their cases gave a count of from 13,000 to 17,000

It must be borne in mind, however, that the white cell count tends to be higher in soldiers than in civilians. Several observers have noted this peculiar fact. Thus Bokelmann and Nassau (Berl. klin. Wohnschr., 1918, 55, 353-4) examined the blood of 70 healthy soldiers (officers and men), 59 being of middle age. There was a well marked increase in the lymphocytes, varying from 25-73%, and averaging 43%, with a corresponding diminution in the polysmorphounclear cells. S. Newman (Wien. klin. Wohnschrif, 1918, 31, 1,000-4) found the same thing, as did also D. L. Tate and J. W. McLeod (Lancet, April 27th, 1918, page 603). With this qualification a rise in the leukocytes may then help in the diagnosis of trench fever as against typhoid, but an absence of this leukocytosis will be of no value.

Professor Duncan Graham tells me that he has found that the chief difference between the blood picture in malaria and in trench fever is that in the former the blood platelets are scanty, while in the latter they are numerous. I have not come across any mention of this in the literature.

Last autumn Major D. W. Carmalt Jones (Lancet, Oct. 5th, 1918, page 443) described a peculiar condition of cutaneous hyperæsthesia that often occurred in trench fever cases. These are of a similar nature to the areas of cutaneous hyperæsthesia that have been so minutely described by Sir J. Mackenzie and Dr. H. Head as indicative of disease of various organs of the body, only the distribution is different. Major Carmalt Jones examined in a routine manner all the patients coming into a base hospital in France. Definite segmental areas of increased sensibility to pain were found very constantly, corresponding to diseased viscera, but in a number of cases the distribution did not correspond with any viscus. These unusual areas were the margins of the areas supplied by the 8th cervical and first dorsal, the 7th dorsal, and all the lumbar segments of the cord.

When all the patients showing such distribution of hyperæsthesia were investigated further, they were found to be examples of either malaria or of trench fever.

Captain G. E. Sundell (Lancet, Oct. 19th, 1918, page 538), in discussing Major C. Jones' findings, confirmed them, but also described areas of anæsthesia to pin prick within the zones supplied by these nerves. These areas were most common on the outer part of the calf, the intrapatellar, scapular and deltoid regions. I have examined many cases of trench fever in regard to these areas of hyperæsthesia, and have very often found them present, although I am not so sure of Sundell's areas of analgesia. I have demonstrated the symptom in some cases of "D.A.H." and also of myalgia, and consider that it is a valuable aid in the detection of chronic and doubtful cases of trench fever.

Such are the chief clinical features of a chronic infection, which in all probability existed in a slight endemic form before the commencement of the war, but which has since then become epidemic to a great degree. As infected men return to surroundings where the body louse is common, the epidemic is likely to continue, so that probably we will not only have to deal with many chronic cases for some years to come, but will also find new ones cropping up in the poorer and more crowded districts.

Fortieth Annual Meeting of the Ontario Medical Association

Toronto, May 25, 26, 27, 28, 1920

to be held at

The Medical Building and Hart House

Some Notes from the Preliminary Programme

The Committee on General Purposes meets in Hart House on Tuesday, May 25th, at 2 p.m.

Round Table Dinner, Tuesday evening at 6.30 p.m.

Association telephone number during the meeting—College 2564. Leave a note of this in your office in case you are called by long distance.

Association Post Office—Medical Building, University of Toronto.

Mail and telegrams should be addressed accordingly.

The President and Mrs. Marlow will receive at the Academy of Medicine on Wednesday, from 4.30 to 6.30 p.m.

Association Dinner in Hart House, on Wednesday at 7 p.m.

Mrs. Walter Massey has very kindly arranged a Garden Party for Thursday afternoon, at Dentonia Park, 4.30 p.m.

The Board of Trustees of the Toronto General Hospital are entertaining the members to luncheon on Friday at 1.00 p.m.

The Academy of Medicine will be open to all members of the Association attending the Annual Meeting.

The Scientific Programme—General and Sectional Meetings—suggests most interesting and profitable sessions.

The biggest attendance ever is looked for.

REPORT OF THREE CASES OF HYDATIDIFORM MOLE

Gordon W. Mylks, M.D., Kingston, Ont.

A review of the literature concerning the curious changes resulting in hydatidiform mole convinces one of the rarity of these cases. To have seen three cases between the months of June and December, 1919, emphasizes again the law of triple coincidence as it pertains to medical and surgical practice.

Eden states that hydatidiform mole occurs in from 1 in 2,000 to 1 in 2,500 pregnancies. Considerable interest attaches to the condition on account of its relationship to subsequent chorion epithelioma. Kromer in a review of seventeen cases of hydatidiform mole found that seven developed the later condition of chorion epithelioma. Galabin, quoting another series of ninety cases of chorion epithelioma, found that 49 followed a vesicular mole.

Such a predisposition to malignancy suggests the necessity of keeping these cases under close observation for several months after the termination of molar pregnancy.

As to the causation of hydatidiform mole, observers seem to be at great variance. Thus constitutional disorders such as Bright's disease, anæmia, syphilis, are said to be causal factors. Some hold that the fault lies in the decidua, while others believe that it is primarily a disease of the ovum. The frequent association of corpus luteum cysts of the ovary with vesicular mole is mentioned by some as an etiological factor. Such speculation as to the etiology suggests at once that the actual cause is at present unknown.

The three cases I am about to cite were multiparæ. Two were over forty and one over thirty years of age. Two of the three had had miscarriages. In none of these cases could ovarian tumors be made out.

Case 1.—Mrs. McD., age 42. Has had 14 children. No miscarriages. Came to my office in April, 1919, complaining of blood from vagina for about six weeks. No nausea. No pain. Last regular period January, 1919. Examination revealed lump rising to one inch below umbilicus, ovoid in shape and rather soft. Patient came into hospital in May and was examined under anæsthetic. After speculum had been placed in vagina blood was noticed to ooze from cervix and a tiny oval cyst was found in the discharge. The cervix was then dilated first with Hegars sounds and then by means of manual dilatation. Large quantities of cystic material were then scooped out of the uterine cavity, using the gloved hand instead of the curette on account of the known erosive action of some of these moles upon the wall of the uterus. There was very little hæmorrhage. The patient left the hospital a week later. She has reported regularly since and there has been no recurrence of the bleeding.

Case 2.—Mrs. MacD., age 47. Mother of 4 children. One miscarriage. Mother and one maternal aunt and one sister died of "tumors of the pelvis." Patient herself had right breast removed seven years ago. Records of pathological findings not obtainable. No axillary or other metastases evident. Patient menstruated last in July, 1919. In September had severe nausea and vomiting, which continued throughout October. Had a brownish vaginal discharge. Examination revealed an ovoid lump rising out of the pelvis to the level of the umbilicus, regular in form and soft in consistence. Advised removal to hospital for thorough examination. A few hours before her intended departure for the hospital the patient was seized with a severe hæmorrhage, and on my arrival I found the patient flowing freely. Packed the vagina quite tightly. After removal to hospital removed packing and examined uterus carefully. As yet there was no dilatation, though the bleeding was still going on. Repacked the vagina. In two hours strong pains came on and after removing the vaginal plug I was able to remove the whole cystic mass. The patient made a complete recovery, leaving the hospital on about the tenth day.

Case 3.—Mrs. C. This patient was seen in consultation. Age 30. Had several miscarriages and one child at term, the latter presenting the peculiar condition of congenital absence of the bile ducts and surviving for about 10 months. The patient began to flow one week before admission to hospital. Examination revealed uterus enlarged to level of umbilicus and quite soft—a sign made out with much difficulty on account of condition of obesity present. The vagina had been plugged by attending physician before the patient left her home. Shortly after arrival at the hospital the mass began to appear in the vagina. The entire mole was spontaneously expelled from the uterus. The hæmorrhage was insignificant. Patient made an uninterrupted recovery, and has remained in perfect health with no return of hæmorrhage or other symptoms.

Gross examination of these specimens in Cases 1 and 2 gave the usual appearance of a cystic mass made up of an aggregation of oval cysts of varying size and connected to each other by means of a slender stalk. The variation in size of these small cysts is supposed to be due to the difference in rate of proliferative changes in the chorionic cells. In Case 3, the specimen was found to consist of part cystic and part placenta-like tissue. It is thought that the changes which result in vesicular mole have their beginning about the second month of the gestation period before the differentiation of placenta from decidua. In this case it would seem that the change began later after the commencement of placental development. No trace of embryo was found, though in specimen of Case 2, remnants of the amnion were found. Histological examination did not show any marked proliferative change in the syncytial cells, as is said to appear in the so-called deciduoma malignum.

The points of importance in connection with these interesting cases seem to be:—

1. That they appear towards the end of the child-bearing period.

2. That the actual cause is unknown.

3. The history of miscarriages in two of these cases is at least suggestive.

4. The disproportion in the size of the uterus in relation to the gestation period, the soft consistence of the enlarged uterus, and the reddish-brown vaginal discharge may be said collectively to be important diagnostic signs.

5. That owing to the occasional incidence of a markedly proliferative type (deciduoma malignum), the curette should not be used in evacuating the uterus on account of the risk of perforation. Carefully emptying the uterus by means of the gloved hand is the preferable method.

6. Close observation of the patient for upwards of one year after the passing of a vesicular mole should be regularly carried out so as to apprehend the onset of chorion epithelioma.

POST-GRADUATE EXTENSION COURSES IN ONTARIO

There has just been published by the Ontario Medical Association a schedule of post-graduate extension lecture courses for distribution to the local medical societies in the Province.

The subjects presented embrace the entire field of Medicine as existing to-day, and local groups of practitioners are to be congratulated on having at their disposal a plan whereby they may have brought to their own locality from time to time all that is new and up-to-date in their profession, presented by men well qualified to perform the task.

The success of the undertaking depends entirely upon the interest manifested by local groups and the extent to which the opportunities offered are accepted.

In some few centres the plan has already been put into operation with very gratifying results. Every local society should show its appreciation of what has been arranged by making use of the services extended.

RUPTURE OF THE GALL BLADDER*

F. W. Marlow, F.R.C.S. Eng., F.A.C.S. Toronto, Ontario
Associate Professor of Gynæcology, Toronto University.

Though much has been written during the last score of years relative to the surgery of the biliary system, the available literature on the subject of rupture of the gall bladder has not yet assumed such proportions as to make a further small contribution seem superfluous.

Slow leaks from a gall bladder which is the seat of inflammation, and likely containing stones, are of comparative frequency, being attended by localized peritonitis around the gall bladder, with at times the formation of a localized abscess into which stones may be projected, or to fistulæ between the gall bladder and the intestines through which stones may pass. Local peritonitis with the gall bladder as the storm centre presents a problem readily solved by judicious surgical procedures.

Traumatic rupture, due to sudden abdominal injury, is a condition which has occurred with sufficient frequency to establish the fact that early operation involving closure or drainage is usually attended by recovery, because of the fact that healthy bile, being sterile, does not immediately, when extravasated into the peritoneal cavity, produce intense irritation, with consequent rapid peritonitis.

Sudden rupture of the gall bladder, other than traumatic, is apparently rare, and it is to this type of case that attention is now directed. Its occurrence presupposes infection, and its results are disastrous. Without prompt surgical intervention it is almost certainly fatal, and even with such the mortality is high.

Incident to rupture there is rapid extravasation of infected bile into the peritoneal cavity, and its dissemination is wholly unresisted by adhesions, or only temporarily restrained. Intense irritation of the peritoneum results, and diffuse or general peritonitis rapidly follows. Stones which would appear to be present in most cases may be extruded and lie loose in the abdomen while the gall bladder continues to pour out infection from its walls and extravasated contents.

Causative factors which have been recognized are absence of adequate localizing plastic peritonitis when ulceration and perforation occur from infection with, or more rarely without, stone pressure; sudden giving away of a gangrenous patch, or a break when in a diffusely gangrenous state; or bursting from

*Presented before Academy of Medicine, Toronto.

over distension of a gall bladder which has become thickened, thrombotic, friable and in a pre-gangrenous state from acute and severe inflammation.

Organisms most frequently found are the colon bacillus, typhoid bacillus, the staphylococcus and streptococcus. The presence of the gas bacillus has also been reported.

Illustrative of such rupture of the gall bladder are three cases, of which notes follow:—

Case 1.—Male, aged 52 years. This patient was seen in consultation with Dr. W. V. Watson, of Toronto, on Saturday evening, January 11th, 1919. He was a heavy man whose general condition had been moderately good. About 24 hours previously he had been seized with severe abdominal pain, accompanied by some vomiting, and the pain had continued to be severe since the onset. When examined, the abdomen was very slightly distended, and the right side was more rigid than the left. The upper quadrant was more rigid than the lower, suggesting the probability of gall bladder trouble as against appendicitis. His temperature was very little elevated, and his pulse was about 96. It was advised that he should be sent to hospital for further observation, and this was done. Dr. Watson made a blood examination and found the leucocytes to be 12,000. He was allowed some sedative, and had a fairly comfortable night. In the morning his condition was the same, except that his pulse was a little over 100. Examination of the urine revealed 5% of sugar, and because of this it was decided to continue palliative treatment, watching him carefully. In the afternoon he suffered extreme pain, and the pulse had gradually gone up to 116. Operation was decided upon, and was performed at eight o'clock Sunday night, that is, 24 hours after the first consultation, and about 48 hours after the onset of symptoms. An incision was made through the outer part of the right rectus muscle, extending from the margin of the ribs to a short distance below the umbilicus. On opening the abdomen it was found to contain a large amount of bile, and the intestines were intensely congested. The bile was carefully sponged out and the gall bladder was isolated with gauze packs. After releasing it from some adhesions a large perforation was found in its lower wall, about an inch from its end. A few stones were found outside, and also inside, the ruptured viscus. A drainage tube was inserted into the opening, and the edges were inverted closely around it with a purse-string catgut suture. The free ends of the suture were tied in a spiral fashion around the tube, so as to help to retain the tube in position. Although slightly thickened the wall of the gall bladder was firm enough to hold the suture readily, and it appeared likely that the inflammation would resolve under drainage. This procedure was readily accomplished, and seemed best suited to the case, in view of the large amount of sugar present in the urine and the necessity of avoiding undue manipulation. Three other drainage tubes were put in, one extending along below the gall bladder to the back part of the space below the liver, one into the pelvis, and one midway between these. The gauze packs were removed and the incision was closed between and around the

drainage tubes with catgut and silk worm gut. During the operation the patient's pulse became very weak, running over 160. After he returned to bed he was given normal saline interstitially, and was stimulated by camphor and strychnine, and responded fairly well. On the following day his condition was fairly satisfactory. There was moderate drainage, no distension, very little vomiting, and the pulse was about 120. On the second day there was free drainage from the tube in the gall bladder, but very little from the others. The abdomen remained soft, and there was no rigidity and very little distension. Enemas given were fairly effectual. Fluids were being taken freely. On the third day, although the abdominal condition continued to be satisfactory, the patient became very dull and the pulse became weaker and more rapid. His condition gradually grew worse, and he became unconscious, and in the middle of the afternoon, about 68 hours after the operation, he died. Following the operation the large percentage of sugar was still present in the urine, and his death was apparently due to the diabetic state.

Case 2.—Male, aged 49 years. This patient had always enjoyed good health, and stated that he had never been ill except for occasional slight attacks of biliousness. On Friday, July 25th, 1919, he returned home from out of Toronto, a distance of about sixty miles by motor, and was suffering some abdominal distress in the region of the stomach. This continued during the following day, and on Saturday night he had slight elevation of temperature and slight tenderness on the right side of the abdomen, though not definitely localized, according to the statements of his physician, Dr. R. S. Richardson, of Toronto. At two o'clock on Sunday morning he had rather severe pain, which passed off in a short time. At about 10.45 Sunday morning he was seized with sudden severe pain on the right side of the abdomen, accompanied by vomiting. This was rapidly followed by extreme collapse, and his color became quite cyanotic. Dr. Richardson saw him shortly afterwards and administered morphia on account of the extreme pain and collapse. At 11.15, half an hour after the attack began, when seen in consultation, he looked extremely ill, and was still suffering considerable pain in spite of the morphia. His face was bluish, but his pulse was fairly good, the rate being about 80. His temperature was 99 2/5. On examination of the abdomen there was slight distension, and the whole of the right side was markedly rigid. There was marked tenderness over both the upper and lower quadrants. On account of the morphia it was impossible to determine accurately the maximum point of tenderness, but on account of the suddenness of the attack which was followed by collapse it was considered likely that a perforation had occurred, either in the appendix, duodenum, stomach or gall bladder, and more likely in the upper abdominal region. He was immediately sent to the hospital, and while going there in the ambulance he suffered a great deal of pain. On his arrival there he stated that the pain was greater in the upper part of the abdomen on the right side. Operation was proceeded with at once at an interval of one hour and a half after the onset of the attack. While the anæsthetic was

being administered, and throughout the operation, his circulation was very poor, and it was necessary to administer oxygen frequently. An incision was made through the right rectus muscle opposite the umbilicus, so as to allow a free exploration of the abdomen. On disturbing the intestines and pushing them gently toward the middle line some free bile was discovered. This indicated the trouble as being likely in the gall bladder. Before proceeding to the upper part of the abdomen the appendix was examined, and although it appeared slightly thickened and congested, it did not appear to be causing trouble, and so was not removed. The incision was then enlarged upwards to the border of the ribs and the intestines and stomach were packed away with gauze packs. Meanwhile a considerable amount of bile was sponged out. When the gall bladder was exposed it was found to be quite black and completely gangrenous. Apparently there had been some old trouble, as there were a good many adhesions around the gall bladder, and its lower wall was partially embedded in and partly separated from a mould of thickened mesenteric tissue. When separated from this tissue there was a large tear in the lower wall, through which bile and pus were escaping. Some small stones were present. It was determined that in order to deal with the situation satisfactorily the gall bladder would have to be removed. The escaping fluid was sponged away, and the cystic duct was isolated after releasing the adhesions, and ligated with chromic catgut. This had the effect of shutting off the escaping bile. The gall bladder was then removed, and as there was no hæmorrhage of consequence no attempt was made to suture the fissure. A drainage tube with gauze through it was inserted down to the common bile duct, and the projecting end of the gauze was placed in the gall bladder fissure. This tube was placed in the upper end of the incision. A further drainage tube was placed, through a stab wound in the loin, underneath the liver and kidney, and still another was placed in the lower end of the incision and extending to the bottom of the pelvis. The gauze packs were then removed and the incision was closed with catgut, silk worm gut and fine silk. The operation was borne moderately well, and on his return to bed he was given normal saline interstitially, and was stimulated with camphor and strychnine. As soon as he was conscious his head and shoulders were slightly raised, and later on he was raised to a semi-sitting posture. During the evening his circulation improved very much, and his condition was generally satisfactory. He was perspiring freely, and his pulse was about 110. There was no vomiting. Subsequent progress was very satisfactory, so far as the abdominal condition was concerned. The drainage was gradually dispensed with, so that at the end of a week all the original drains were removed, with small gauze wicks substituted. No leak of bile occurred. The discharge gradually lessened, and the wound and drainage openings healed without any special trouble. During the early days after the operation he suffered considerably from cough, and at the end of the first week his temperature went up after a chill. Two days later it was found that he had a pneumonia, involving the lower lobe of the right lung. At this time Dr. William

Goldie was called in consultation and directed the treatment of the pneumonic condition. The temperature did not exceed 102, and the pulse was usually maintained below 100. About a week later this had practically cleared up, and from that time his progress was uninterrupted. At the time of his discharge, on September 2nd, his condition was very satisfactory. He was able to walk about without difficulty, and although he had lost a considerable amount of weight he was looking and feeling quite well.

Case 3.—Male, aged 62 years. This patient was seen in consultation with Dr. F. C. Riches, of Toronto, on Friday, December 5th, 1919. On the previous Friday he had been seized with severe pain in the abdomen, accompanied by vomiting. His previous state of health had been good, although he had suffered some from indigestion at intervals, though not severely. Dr. Riches attended him and found him with slight rise of temperature and pulse, and with tenderness and rigidity of the right upper quadrant of the abdomen. He made the diagnosis of gall bladder disease, but as conditions did not seem urgent, and in view of his advanced age, he adopted palliative treatment, and for a few days the results appeared to be quite satisfactory. The temperature subsided, the vomiting ceased, and the pain largely disappeared. On the night previous to consultation he was seized with sudden and very severe pain, and vomiting recurred. Dr. Riches saw him in the morning, and found that the local signs had returned and were more marked than previously, though his temperature was not elevated and the pulse was about normal. Consultation took place that evening, and on examination the upper right quadrant of the abdomen appeared swollen and presented intense rigidity and tenderness. The temperature and pulse were still normal, but the patient was evidently much distressed. A slight trace of jaundice was present. He was removed to the hospital later that night, and operation was performed the following morning. When under the anæsthetic a distinct mass could be felt in the upper right quadrant. An incision was made through the right rectus muscle extending from the margin of the ribs to the level of the umbilicus. On opening the abdomen some serous fluid was seen, and it was apparent that there was serious trouble in the region of the gall bladder. Gauze packs were put in around the mass so as to protect the general abdominal cavity, and on slightly disturbing a recent adhesion of omentum to the lower edge of the liver a large cavity was opened up with a tremendous outflow of bile and pus. This was quickly sponged out with gauze, and a few loose stones were removed. The gall bladder was pretty well embedded in adhesions, and when isolated was found to be greatly thickened, quite dark in color, very friable and undoubtedly in a pre-gangrenous state. There was a large break in its lower wall, close to the cystic duct, in which a moderate sized stone was embedded. The gall bladder appeared so infectious that its removal seemed desirable, but it was firmly adherent to the liver, and with the patient's advanced age and weakened condition in mind one decided upon an incomplete cholecystectomy. The stone was removed from the duct, and the duct was ligated with chromic

catgut and cut across outside the ligature. The gall bladder was then clipped away, leaving the portion attached to the liver in situ. Though there was practically no bleeding, and probably because the vessels were thrombosed, the cut edges were oversewn with a running suture of plain catgut. The cavity was then drained by numerous radially arranged and imbricated strips of gauze with a tube placed in the centre. A stab wound was made through the loin and a drainage tube was placed under the liver and kidney. The gauze packs were then removed and the wound was closed with catgut, silk worm gut and fine silk, except at the upper end, where it was left well open to accommodate the large drain. The patient stood the operation well, and on his return to the ward was given normal saline interstitially and was stimulated with camphor and strychnine. No vomiting followed, and there was no abdominal distension. The bowels were easily moved with enemas. Drainage was gradually eliminated, and his progress was entirely satisfactory throughout his stay in the hospital. No leak of bile occurred. When discharged on January 13th, 1920, he was able to get about freely and his wound was well healed, except for a shallow sinus at the upper end, at the site of the large drain. The organism present in this case was the colon bacillus.

In these cases there will be noted a marked variation in the pathology, and also in the surgical procedures adopted. In case 1, although the perforation was fairly large and due to ulceration, the wall of the gall bladder appeared quite capable of recovery with drainage, and for this reason as well as the fact that haste and a minimum amount of manipulation were imperative on account of the diabetic state, a cholecystostomy was performed, using the perforation for the site of the drain. In case 2, the gall bladder was so diffusely gangrenous and infectious that its removal was deemed essential and a cholecystectomy was performed. In case 3, the wall was so thickened and dark and the pre-gangrenous state so well established that its removal seemed desirable. On account of its firm attachment to the liver and the inadvisability of risking hæmorrhage or unduly prolonging the operation, an incomplete cholecystectomy was done, allowing the portion attached to the liver to remain.

Adequate drainage was provided in each case, and as death occurred only in case 1, the least infectious of the three, and at a time when the abdominal condition was quite satisfactory, it is reasonable to believe that this patient would also have recovered had it not been for the complicating diabetes.

From such scattered literature as one has been able to consult, and which has been contributed during the last twenty years, it would appear that the incidence of this type of rupture of the gall bladder in relation to conditions of the biliary system demanding surgical intervention is somewhat less than 1%. This estimate, however, cannot be taken as authoritatively approximate. No one surgeon has recorded more than a few cases, and no doubt many single cases have not been reported.

The average age in the cases detailed above was 54, while the generally conceded average age is about 50. All three were males, whilst the records show a slight preponderance in females, with a somewhat lessened mortality than in males.

Stones were present in all three cases, and their relative incidence would appear to be about 75%. In this respect there is a decided analogy to the presence of fæcal concretions in the appendix in cases of acute perforative appendicitis.

In case 3 only was there any jaundice, and this was slight. Its presence in this case was no doubt due to the more prolonged state of inflammation prior to rupture. In this respect, therefore, the cases detailed above correspond to the average.

In all three cases pain was intense, and the right side of the abdomen was markedly rigid. In cases 1 and 2 there was very definite tenderness in the upper right quadrant, but there was also tenderness in the lower right quadrant, due no doubt to the irritation of the infectious bile while gravitating to the pelvis. Lower quadrant tenderness cast some obscurity upon the diagnosis, but upper quadrant tenderness and rigidity in the presence of symptoms strongly suggestive of the rupture of an abdominal viscus were moderately indicative of an upper abdominal condition involving the duodenum, stomach or gall bladder. In case 3, which was less acute and more localized, tenderness and rigidity were so much in excess in the upper quadrant that with a consideration of the history gall bladder trouble seemed very evident.

Regarding procedure in similar cases it would be idle to lay down any definite rules. Each case should be considered individually. There are three important things the surgeon should seriously recognize: first, the general condition of the patient and his or her ability to stand operative procedures; second, the problem presented by the local condition as revealed when the abdomen is opened; and third, but of paramount importance, his capabilities and his limitations in respect to the task before him. With the abdomen opened his guiding thought should be: "What is the best and safest procedure for me (not some one else) to adopt in this case as it now appears?"

The condition is an emergency, and one should take care not to be too radical. In these cases secondary operations do not constitute a reflection upon the work of the surgeon who takes no unnecessary chances with the life of his patient. Naturally, if all the circumstances are conducive to a radical operation it is most desirable to clear up the whole situation by removing, as far as possible, the source of the infection and to take all available steps towards a rapid and satisfactory recovery with the chance of recurrence eliminated.

Adequate drainage is essential, and besides draining the gall bladder or its area when it is removed, it would seem advisable to drain the area below the liver and right kidney through a stab wound in the side, and also the pelvis

through the lower end of the incision in case it appears that the bile has reached the lower part of the abdomen, or is likely to do so.

In the early stage of the operation as much as possible of the extravasated bile will have been carefully removed by gauze sponging.

One of the most valuable contributions to the literature on the subject of sudden perforation of the biliary system coming to one's attention is that of Dr. Clarence A. McWilliams, of New York. (Annals of Surgery, 1912, Vol. lv., 235-263.) Details of two cases under personal observation are given, while in addition the records of 108 operated cases collected from the literature are compiled and discussed. In respect to these the average age was 50.2 years; incidence, in females 60 per cent., in males 40 per cent.; recovery, in females 56 per cent, in males 46 per cent.; death, in females 44 per cent., in males 54 per cent., and recovery in patients under 50 years 63 per cent., and over 50 years 46 per cent. Stones were present in 74 per cent. of cases, jaundice was rare and mostly seen in advanced cases, and in 91 per cent. the perforation of the biliary system was in the gall bladder. In regard to result of surgical procedure of five cases submitted to suture, a method strongly condemned, four died; with incision and drainage 47 per cent. recovered; with cholecystectomy 48 per cent. recovered, and with cholecystostomy 61 per cent. recovered.

Dr. McWilliams also found that in the records of 3,180 operations on the biliary system there were only 29 cases of rupture of the gall bladder, or an incidence of 0.9 per cent.

Since the above mentioned compilation was made it does not appear that much has been added to the literature other than scattered reports of cases and brief discussions of the subject in a general way, so that an opportunity is not afforded of estimating more accurately present day results in dealing with such cases. It would be reasonable to expect, however, that with the advances made in the surgery of the biliary system during the last ten years, results should be somewhat more favorable than before.

CLINICAL CONGRESS OF AMERICAN COLLEGE OF SURGEONS

Some Observations Made at Eye, Ear, Nose and Throat Clinics

F. J. R. Forster, M.B., Stratford.

The following notes were made at the Ninth Clinical Congress of the American College of Surgeons, held in New York, October 20 to 24, 1919. They were written in most instances in the evening of the day on which the clinics occurred. They, of course, were written from memory, no notes being made, except in one or two cases, at the clinic. They are, therefore, as nearly correct as my memory would permit, but if I have misquoted or misinterpreted the statements and procedures of any of the surgeons I humbly apologize for the error.

There may be nothing new in many of the operations, and I may have overlooked the principal point in some of them, but personally I derived considerable benefit from attendance at the congress, because of being permitted to see how many first-class men viewed operations for the relief of certain conditions from different angles and advocated different methods for the relief of those conditions, all with apparent success and with first-class results. It remained for the onlooker to size the situation up for himself, and adopt the procedure that appealed to him as being the most applicable and promising the greatest degree of success in his individual case.

The writer does not pretend to cover all the eye and ear clinics of the congress, but only some of the most important ones which he attended.

From the standpoint of the eye, ear and nose surgeon, the first day of the session was one of the most interesting and instructive of them all. This was because of the special clinical demonstration at the lecture room of the College of Physicians and Surgeons, at which a number of the leading specialists of the United States took part. This special demonstration relieved the crowding which inevitably took place subsequently at many of the clinics, and I believe these demonstrations should be a feature of each congress, and repeated each day for each department or specialty. It would thus enable many visitors to attend these sessions, instead of crowding to the operating rooms, where often their only reward was an occasional glimpse of the patient.

At this demonstration, Dr. John E. Weeks, of New York, spoke on "Enucleation of the Eyeball and Substitute Operations." He gave a brief historical sketch of the operation, and enumerated many substitutes and modifications, without dwelling at length on any except the fat implantation. He showed several cases

of some years' standing in which the results were all that could be desired from a cosmetic point of view. He also mentioned the implantation of decalcified bone and cartilage from sheep as a possible coming operation.

Dr. Allen Greenwood, of Boston, divided the subject into "substitutes for, and additions to, enucleation." As substitutes for, evisceration was the only one dwelt on, and this to be used only in severe panophthalmitis, cellulitis, or such cases as shattered eyeball. He also mentioned optico-ciliary neurectomy.

As additions to enucleation he referred to implantation of fat in Tenon's capsule, also decalcified bone and Mule's sphere. He preferred Mule's sphere, of which he uses a large size, average 20 m.m., and sutures muscles first of all over sphere, then Tenon's capsule, and finally the conjunctiva, the last at right angles to the sutures in the capsule, and also to the palpebral fissure. If done in this manner there is little likelihood of the sphere coming out. By using a large sphere the socket is well filled, and there is absolutely no sinking of the artificial eye, nor the presence of a sulcus above it.

Dr. W. R. Parker, of Detroit, suggested in the fat implantation operation, that in removing the fat the fascia be left attached to one surface, and that surface be placed next the stitches in Tenon's capsule.

Dr. Geo. E. de Schweinitz referred to a committee appointed many years ago to consider means of improving the appearance in enucleated eyes, and quoted the decision arrived at, to the effect that enucleation without some attempt being made to improve the cosmetic appearance was brutal. He referred to the methods described by the other speakers, and also the implantation of a section of bone taken from a rib, which operation, as well as fat implantation, he described as a second operation, and objectionable for this reason, from the standpoint of the patient. He is rather fond of using the gold ball and glass sphere, and thought there might be a future for the use of cartilage taken from the lower animals and kept in ten per cent. formaline.

Dr. Frederick Whiting, of New York, spoke on "The Unreliability of Temperature in Otitis of Infants and Young Children as an Indication for Mastoid Operation." He refuted the statement of some observers that often the first sign of mastoid involvement was a swelling over the mastoid process, before there were signs to be found in the meatus and M.T. He stated that some signs are always to be found in the latter place if sought carefully.

He also read another paper on the danger and insidious nature of infection from the streptococcus mucosus capsulatus in mastoids. Frequently when the ear is discharging freely and the patient seems to be doing well the first dangerous symptoms are those of meningitis, at which time operation is useless. Or even late during convalescence re-infection occurs with chill, prostration, meningitis, followed by quick death. He emphasized the value of X-Ray in localizing the extent of the trouble, and of the bacteriological examination of the pus to determine the presence or absence of the S. mucosus, which is responsible for such a dangerous condition and high mortality.

In his treatment of these cases he is careful to suture the wound only at the extremities, packs the wound with gauze soaked in one-half per cent. Tr. Iodi till the bone is covered, taking care not to injure the granulations, if possible. The condition is frequently present in diabetes of midlife.

Dr. Cornelius G. Coakley, of New York, spoke on the External Surgery of the Nasal Accessory Sinuses. During the past ten years there has been an increasing tendency to treat frontal and ethmoidal disease by the intranasal route. Still there are about thirteen per cent. requiring external operation. He referred to some details of the operation, among which he emphasized the necessity of leaving no overhanging bone, bevelling the edges of the bony wound. Frequent cause of failure is leaving a cell in the floor of the sinus communicating with either the sinus itself or with the ethmoid cells. He does a modified Killian, but makes two incisions, leaving a bridge of uncut skin between the two. He was particular about two points in the operation; first, to leave no overhang, and second, to open the cell in the floor, and also to look for the cell in the external angle of the sinus. Dr. Mosher, of Boston, disagreed in regard to the necessity of removing the overhang, and claimed it possible to remove all the disease without doing so, and in addition there was less deformity. He urged the removal of all the floor of the sinus. He also spoke favorably of Lothrop's operation for the treatment of the other frontal sinus when diseased, through the same opening. Dr. Coakley did not favor Lothrop's operation, but made a double wing incision when it was necessary to operate on both sides. Dr. Mosher extended his incision in the scowling wrinkle, and notched the periosteum when necessary to get more room.

Manhattan Eye and Ear Infirmary. Dr. D. H. Jones did a submucous resection of the septum, some features of which were new. In the first place his anæsthesia was produced by taking seven drops of 20 per cent. cocaine and two drops of adrenaline. He used two applicators, one for each side, swabbing over the septal mucosa and placing the applicator between the middle turbinate and septum, over the course of the nerves supplying the upper part of the septum, leaving them for five minutes. This is all the anæsthetic used, except a hypo of 5 per cent. novocaine in the lower and anterior part of the septum, and a hypo of H.M.C. given before starting the operation. He always makes his incision on the left side, and does not use a sponge or cotton in the nose at all, having the patient blow the nose in a sterile towel to clear of blood. He does not pack the nose, and makes an incision near the floor on the right side for drainage.

A case was seen subsequently in this clinic—a young lady with a sunken nose three months after a submucous resection elsewhere. She had had a good deal of trouble in the nose immediately following the operation, the probability being that an infection of the wound occurred following the operation, with necrosis of part of the bony septum. It was an object lesson in the necessity of the greatest care in asepsis during this operation.

Ethmoid—Intranasal operation by Dr. Faulkner. After anæsthetizing he uses a knife to cut through the mucous membrane at the external attachment of the middle turbinate to the superior maxilla, to prevent tearing. Then introduces a gouge against the anterior border of the attachment of the mid. turb. and breaks it off by pressing backward and downward. He then uses a large ring curette to open ethmoid cells, and uses biting forceps to finish off the job. If the septum is deflected he usually does a submucous resection before attacking the ethmoids.

New York Post Graduate—Clinic of Prof. Beaman Douglas. One of the features of the congress was the plethora of tonsillectomies, and all the methods were demonstrated and defended by their advocates. One of the neatest was that done in Dr. Douglas' clinic by Dr. Lovell under local anæsthesia. He first swabs the throat and base of tongue with 5 per cent. cocaine, and then injects a solution of cocaine one-half grain to the ounce with a few drops of adrenaline into the pillars and base of tonsil. He uses a hook to hold the tonsil, and a pair of nasal scissors, and incises the pillars, keeping close to tonsil. It is most important to keep close to tonsil all the time in order to prevent hæmorrhage. He removes tonsil completely with scissors, or, if in a hurry, finishes with snare. He claims to have no secondary hæmorrhage if it is all stopped at the time, that which gives trouble later is hæmorrhage which has not been completely stopped at the operation.

Maxillary Antrum—Chronic Suppuration. For these cases Dr. Douglas follows the plan of washing out twice weekly for about six weeks, and if no improvement, does a radical operation. Does not believe in the intranasal operation. Removes all nasal wall as well as anterior. Removes all inferior turb, except posterior end; does not turn nasal mucous membrane into antrum, as believes it sloughs. When cleaning out ethmoids at same time he removes only anterior end of middle turb., breaks through bulla and goes back into sphenoid. Uses only biting forcepts; does not use curette in ethmoid. Then removes balance of middle turb. Does not pack nose, only antrum; removes packing in 48 hours.

New York Eye and Ear Infirmary—Dr. L. W. Callan. Enucleation with implantation of glass sphere. Dr. Callan uses a large sphere, about 20 m.m.; uses black silk to stitch muscles across globe; same material for Tenon's capsule and conjunctiva. Has seen none slough out in the nine months he has been doing this.

Knapp Memorial Eye Hospital—Dr. E. Torok. Enucleation with fat implantation. The feature of this operation to me was the size of the mass of fat crowded into Tenon's capsule. Dr. Torok took a very large piece of fat from a triangular incision in the abdomen, crowded it at once into the socket, stitched muscles over it with catgut, trimmed off what he could not cover with capsule and conjunctiva. He uses catgut for the capsule and silk for conjunctiva. He states that the fat ultimately shrinks about fifty per cent.

Dr. Arnold Knapp and Dr. Torok did a number of cataract extractions in capsule which I will not attempt to describe, except to say that the method of delivering the lens is a combination of pressure with gentle side to side traction on the lens capsule with special capsule forceps.

Dr. Knapp as a rule does not do his first dressing for about four days. Dr. Torok does his in twenty-four hours.

Dr. Torok did a combined extraction, not in capsule, of a cataract complicated with extensive posterior synechiæ. After the section and iridectomy he separated the remainder of the iris with a spatula, did his capsulotomy and endeavored to deliver the lens. As it presented in the wound and would not be delivered he completed delivery with a sharp hook, which he always has ready in these cases.

The same operator also removed the whole lachrymal gland in a case of epiphora following extirpation of the lachrymal sac.

This was done through an incision in the skin over the external angular process. He does not think that removal of the accessory gland is sufficient in these cases. There is no uncomfortable symptom following this operation.

Bellevue Hospital. Dr. L. M. Hurd. Radical Fronto-Ethmoidal Operation. The patient had pulmonary tuberculosis, so that ether was given per rectum. Dr. Hurd did a Killian operation with some modifications. In separating the pulley of the superior oblique he used a hook and got deep behind the tendon, and pulled forward, keeping close to the bone. This method, he claims, does not produce diplopia. Removed the upper and inner walls of the orbit as extensively as was necessary to get rid of all diseased bone in the ethmoid and frontal sinus, being careful not to wound the ethmoidal vessels. He stitched the skin wound with special cutaneous sutures prepared by B. & B. Did not pack the frontal cavity, only the ethmoid through the nose; this is removed the next day.

Intranasal Operation for Chronic Maxillary Sinusitis. There was nothing specially worthy of note about this operation, except to mention that he believes in it. It was done under a local anæsthetic, a weak solution of cocaine being injected into the antrum. The operation was done with very little pain.

WHAT IS WRONG WITH THE MEDICAL PRACTICE OF TO-DAY?*

J. Heurner Mullin, M.B., Hamilton, Ont.

Quoting from Stevenson: "The Physician is the flower (such as it is) of our civilization, and when that stage of man is done with and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period and most notably exhibited the virtues of the race."

It is possible that even now in this topsy-turvy world, we are about to realize the significance of this prophecy. Let those who are apt to be superstitious, reflect. Has not Father Time taken from our midst, only a few days since, the ideal gentleman of our period, Richard A. Reeve, who probably completely embodied all the virtues, with few, if any, of the faults? He has been removed from the stage in the full glow of mental activity and busy as always in the interests and advancements of the profession. As Chairman of the Special Committee of the Ontario Medical Association, he had worked strenuously to present in its proper light, to the Government of the Province, the rights of the Medical Profession and the necessity for the reasonable protection of the public, by keeping the requirements for a license to practice up to a high point in regard to academic standards. Will Medicine of the future still develop these bright and shining lights? I would strongly advise all who have not yet done so, to read Dr. Paget's "Confessio Medici." There, in a modern classic, one will find a study of the doctor of the old school. I trust that at least a few will be spared from the commercial spirit of the age, and that the forces working about us, may soon make it possible for all to dwell in that modern Utopia, where we may see carried out to perfection, the best traditions of our Profession.

My present object is to make a survey of conditions as they are to-day, or may be in the near or immediate future. It must be evident to all thinking practitioners, that something is wrong with the medical practice of to-day, and the public will soon demand a change. In many cases they have sufficient reasons for their lack of confidence, too often expressed in private and in the public press.

Has not the medical practice of to-day developed many ills which we ourselves should remedy? Are not these ills in some manner responsible for the tendency of the public to seek assistance from all manner of quacks and irregulars who have appeared under the disguise of religion or mysticism?

In preparing for the struggle which is sure to come between the medical profession on the one hand, and the legislators and their more or less expert

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advisors, on the other, we should find out to what extent medical practice is carried on along an ethical and legitimate basis. In England when the Insurance Bill was introduced the medical profession was taken unawares and, as is well known, was in no position to discuss thoroughly the proposed legislation with those in authority.

Let us start *au fond*. Our colleges in the first place attempt to graduate men, trained in all branches of medical science, and once a year a new class is turned loose on the public.

One often wonders what becomes of these men. Some quickly find a location and for financial reasons, settle down in country practice, and soon arrive at a basis of livelihood, sufficient to meet the needs of bodily comfort. Their virtues and success often receive our respect and admiration, but few suggestions have been offered for their betterment.

LODGE PRACTICE

Some others get no further than an insignificant back corner city lot, where they pass in and out, a string of Lodge patients, and their attaches, the more that come, the greater the prosperity in the eyes of the clients. No doubt many count on this arrangement as a padding to their growing practice, and what they indirectly get out of it. Surely even such men as these, after all their training, must have an ambition to reach a higher level than this. Can such lack of vision produce a type of general practitioner who strives for the heights that can be reached by perseverance in observation, and diligence in study. Some there may be who will work out of it, but it is axiomatic that the longer they stay in it, the more difficult will be the process of getting out.

How can the opportunities and stimulus of the ordinary Lodge practice show any possible influence in developing the spark of scientific interest which some of our learned professors would hope to kindle? Does the criticism of the chronic kicker in the Lodge, the member who makes it his business to control the votes, stimulate this scientific interest? Does the examination and trial by a band of laymen on the floor of the Lodge take any account of the possibilities of advanced diagnostic insight in the case of some obscure or complicated medical problem, or is it mostly concerned with the complaints against the poor "doc" who incurs the disfavour of the kicker? How many times has this kicker called the unfortunate Lodge doctor unnecessarily during the night? He is the member who insists on immediate attention, and often when his condition is either imaginary, trivial or artificial. The practitioner who depends on this kind of business for a living is usually human, and sooner or later adopts the line of least resistance, and takes care first that the possible kicker is satisfied or appeased before his wrath develops into open opposition.

Further again, the graduate may have become popular in the eyes of the layman, and one by one has found it necessary in the interests of time, to drop some of the smaller Lodges, still retaining one or more of the larger and

influential bodies. On what does this lay popularity stand? Is it not often still, the ability to pass his clients in rapid succession in and out of a crowded waiting room? Still the same standard, the more there are, the more successful. Do they not still cater to the kicker in the block or still in the Lodge? "Find out the old woman who is boss, and do and say what she thinks is right" is the advice of this group. It is certainly remarkable how far this will lead, and how prosperous in the commercial sense a clever student of humanity will become sooner or later.

The practice of bluff, slipshod methods, and procrastination have been responsible for many cases of lack of confidence. The necessary practice of the Lodge or contract plan, when the young practitioner makes it his chief aim to get the job over as quickly and conveniently as possible, must of necessity give many opportunities for slackness in diagnosis and for incorrect and insufficient methods of treatment.

THE SPECIALIST

Then we have another group, who in addition to the degree which their Alma Mater conferred, have an income sufficiently large to permit them, for a short time, to satisfy the demands of the inner man without forgetting the outward apparel and taking into full consideration the demands of decency and fashion. Perhaps they have been fortunate in obtaining a "house position" in one of the larger hospitals and still retain some association with the learned professors. They may find it possible to spend still further, a short period in the pursuits of knowledge and experience in order that when they go out into practice they can do so with some appearance of superiority and authority and be known to the world as Specialists. Soon they find it possible to demand and extract from the anxious public, fees sufficiently large to increase further still their outward appearance of success. With such a practice on a commercial basis, nothing can interfere with a further extension of their field of opportunity.

Many of us have known of cases when instead of depending on the old-time confidant, the family doctor, the "know-all" client decides many of the simple problems for himself and when in doubt calls in the Specialist, who he thinks comes nearest to the condition to be treated. Perhaps if not understanding the lengthy explanation and diagnosis, he leaves the office of Specialist No. 1, and on the street takes an opinion from the first stranger passing by, and either settles the problem by such advice, or moves on to Specialist No. 2. How far he goes depends mostly on the condition of the horoscope. I think all will agree that opportunities will be many for falling down in this method for discovery.

UNIVERSAL HEALTH SERVICE

Certain investigations have been made on this continent attempting to ascertain the amount of sickness uncared for; for example in that of Rochester,

N.Y., made by the Metropolitan Life Insurance Company for New York City, it was found that only 63.8 per cent. of those incapacitated for their work, employed physicians, or were being treated in institutions, only 50 per cent. of the total sick outside institutions were in the care of physicans, and only 45.3 per cent. of those sick, but able to work, were being cared for. It is fair to assume that in most communities these figures should be taken approximately as an average condition for purposes of argument.

Previously, sickness in this country was always, and is often still, looked upon as a personal misfortune, and not an economic calamity for which all members of the community are more or less responsible. It must be evident to all that the State will soon be called on to take a greater interest in this duty and make some better provision for those who have been neglected in the past, or have been inadequately served. Experience in the past assures us that the Medical Profession as a whole, or in a large part at least, will be willing to adapt themselves to changed social conditions, and if necessary, serve a deserving but impecunious public, at a much lower rate than that nominally listed on the tariff.

What, then, is to be the solution of all these difficulties?

Benjamin Moore in his "Dawn of the Health Age," pointed the way in 1910, for the construction of a National Health Service, manned by a staff paid a salary for whole time service. Each, he claimed, should be assigned a district in which to work. At certain hours, the doctor should make his visiting rounds, much as he does at present, but under much more ideal conditions than he can now enjoy. He would have no rivals worrying him, no bills to bother about, no suspicions lest his patients should think he was a seeker after fees. His practice would be compact in the district allotted to him, and while there would be sufficient supervision to see there was no shirking of work, he would be free from a hundred embarrassments in his work from which he now suffers.

In regard to the adoption of State Insurance of various kinds, the situation as it existed immediately preceding the Great War, seems best summed up by saying that accident compensation or accident insurance had been established practically throughout Europe and in many British colonies. Compulsory sickness insurance had been introduced in about one-half of the large countries of Europe, namely, Germany, Austria-Hungary, Norway, Great Britain, Serbia and Russia, and voluntary subsidized sickness insurance in France, Denmark, Sweden and Switzerland. Compulsory old age pensions in Denmark, Iceland, Great Britain, France, Australia and New Zealand, and voluntary subsidized State systems of old age insurance in Italy, Belgium, Serbia and Spain. Unemployed insurance by means of subsidies to workmen's voluntary organizations was rapidly spreading in large European countries, and existed by national law in Norway and Denmark. The first compulsory unemployment insurance system had been established in Great Britain; the first beginning of a national system of widows' and orphans' pensions had been made in Germany.

The insurance movement in the United States had culminated in the presentation of the Standard Bill which was drawn up by the American Association for Labor Legislation. This has appeared in some of the States where it has been presented, in a more or less modified form, under the name of the Mills or Doten-Young Bill. Copies of the Standard Bill can be obtained by direct application to the above association, or may be found in various State medical publications during the past five years.

This bill makes health insurance universal for all manual workers and for others earning $100.00 a month or less, because experience elsewhere has shown that voluntary insurance will not reach those persons who most need its protection, and that insurance must be obligatory if it is to render the large social service of which it is capable.

The benefits provided are medical, surgical and nursing attendance, including necessary hospital care, medicine and supplies for both insured and their dependents, a sickness benefit for the insured beginning on the fourth day of illness, equal to two-thirds of his wages, and it provides for a maximum of twenty-six weeks in any one year; a maternity benefit covering all necessary care for the wives of insured men and for insured women, the latter receiving in addition a cash benefit equal to two-thirds of wages for eight weeks, and for a funeral benefit of not less than $100.00.

The cost of these benefits and their administration, amounting to about 4% of wages, is borne, two-fifths by the employee, two-fifths by the employer and one-fifth by the State. The employee is asked to contribute because he is in some degree responsible for his own health, and because he receives benefits. The contribution of the employer is justified on the ground that illness is to a considerable extent occupational in origin. The States' share in the joint contribution is justified by the present cost of sickness to the State and by the States' recognized responsibility for community action to protect health.

STATE INSURANCE AND THE PHYSICIAN

The duties of the attending physicians must form an essential part of the successful working of any insurance scheme. In the case of charity, the public has perhaps selfishly anticipated that the physician has willingly and gladly given his time and knowledge, wherever the poor are concerned, and the doctor has lived up to this anticipation. This had been described as the Robin Hood System of Medical Practice, "he robs the rich to pay for the poor." Undoubtedly this condition will in the near future require to be revised. Physicians working in hospitals should receive just remuneration for the work done. At present the work of the physician is included in the charges for nursing, food and lodging. Charges for hospital care and medical care should be distinctly separate.

Under any insurance scheme, the physician's services should be placed on a business basis. He should be justly remunerated for adequate service. The physicians who do the work must earn a decent living, and we must see to

it that they receive every consideration in providing that their standard of living, as a class, shall not be lowered from that which they now enjoy, or are later entitled to.

Under this bill the bulk of the work would be carried on by panel physicians. Every legally qualified man would be put on a panel, or list of physicians, willing to do health insurance work in his district.

In some communities it would be necessary to appoint a corps of consultants to furnish second opinions. These would especially be useful for small towns which lack dispensary service and hospital accommodation.

Under this bill the medical organization appears as a well-balanced scheme by which many quarrels and frictions produced in the Old World would be avoided. Disputes are safeguarded by arbitration committees and the medical profession is given the standing, and awarded certain privileges for which the English physician had to fight, namely, adequate representation on committees before which its interests will come up for discussion.

Such as it is, though more satisfactory from many points of view than anything represented in other countries, the bill and completed reorganization of the profession which it entails, is most unsatisfactory from our present point of view. The problem of remuneration alone is one which must stagger the honest legislator, and question its ethical basis and with this the wisdom of accepting the whole measure. In addition to this, the malingerer problem presents difficulties which must be self-evident, especially to those who have seen active military service. Too often the public expects us to give definite opinions as to the nature of some illness, which is merely in the process of development, the exact nature of which is still in doubt. In private life the malingerer would have ample opportunity to take advantage of any free doctoring scheme accentuated by a compensation for a period of illness.

As a result of this agitation, it has been suggested that in large hospital centres, preliminary to any adoption of the bill as outlined, a scheme for the organization of diagnostic clinics would be more in keeping with our spirit of democracy. Under this scheme the service of full-time or half-time consultants would be available for the use of those medical men who would care to take such patients as are unable to pay the exorbitant rates which total up in our present system of going the rounds of our present day unattached specialists.

PUBLIC HEALTH ORGANIZATION

No thinking man to-day can deny the possible advantages of thoroughly organized Departments of Public Health, either local or municipal, or those central bodies which represent the State as a whole. The public must be educated and more effectively stimulated to appreciate these advantages in their true sense. All possible and reasonable assistance, financial or otherwise, must be given such departments, in order to develop their particular field of usefulness. Insufficient recognition of the necessity for such assistance has been given

in any of the bills patterned after the model referred to, which have been presented to the various State legislators in the U.S.A. Attention has been more forcibly directed towards the treatment of sickness and for the relief of conditions which this sickness produces.

The true functions of these so-called Departments of Public Health must be limited entirely to the preventive side of medicine. Any attempt on the part of health officers to treat those who are ill must be met by a strong and united effort by those who have still any respect for our free institutions, and the spirit of democracy.

In our child welfare clinics and in some systems of school inspection, there has been a suspicion that appointees under Departments of Public Health have already overstepped their function. We must guard and protect the unthinking public against any infringements on their personal liberties.

The public has also a right to demand that appointees in Departments of Health are something better than merely political heelers resting comfortably in the assurance of a life job. Many good men are now in such positions, but what assurance have we that their successors in office will always be of the same high standards?

THE PRACTITIONER AND THE LAYMAN

Let us again consider for a moment our study of medical practice as we know it to-day. How does the average doctor really ever "get into a practice"? Does he have to join the church? Does he have to sing solos in the choir or teach in the Sunday school? Does he have to join the lodge and become famous as a great ritualist? Does he have to play in the bowling green or at golf? Or must he simply be a good fellow and a real all-round sport?

In what position is the layman who wishes to select his medical attendant? In what possible manner can he judge of his ability, taking into consideration either his fund of scientific knowledge or his capacity for sound judgment? Is he not too often influenced by possessing an emotional and sentimental nature, rather than by using that logical analysis which he adopts in his business affairs? Is he not more likely to be on the lookout for a "nice doctor" with good manners, dress and other attributes suggesting popularity and success? The doctor's ability to inspire confidence is good within certain limits and in certain cases, but we cannot fail to note that this is too often the main stock-in-trade of the charlatan.

The public should be educated to judge a medical man on his attendance and conduct at the medical society meetings, his interest in the literature of the day and post-graduate study. According to British principles, a man should only be judged by his peers, and certainly some standard or reporting house method should be devised, which would classify men according to their professional ability.

What, then, is to be the practice of medicine in the future? How can we classify men and thereby assist the public in making their selection? Can we agree with ex-President Elliott that we will be divided into surgeons, specialists or officers employed by these Departments of Public Health? Surely when we study the problem more carefully, we can see the many defects of such a system, and find that it must ultimately fail when we consider the requirements of all classes of the community who, after the social revolution, which is sure to come, must be considered on a more uniform basis.

The basic principle of our system in a government under democracy, lies in the fact that every man has a right to a full and complete individual liberty, limited only by the liberty of every other man. If the world war struggle brings nothing else, it will certainly level many of our previous class distinctions and make life worth while for a greater proportion of our people with less luxury and less poverty. The select few will no longer be able to plunder the weak. Poverty, crime, overcrowding, under-nourishment, overwork, lack of education, irregularity of employment, or whatever prevents men, women and children from getting a decent living, have their effect on all problems of public health. These many evils must be removed or adjusted before we can make much progress.

Why not give everyone a decent living and the money wherewith to pay for the needed attention, supplemented, if necessary, by some insurance scheme? Why not make it possible for all laymen to make their selection of a physician with some degree of confidence and protection from the quack?

While a license at the present is all that is required by law, we must do all we can to protect decent society from that high-grade criminal, who recognizes no law, social or professional, and barely keeps out of jail. He employs his medical knowledge simply as a cloak for graft and imposture. He uses the protection of the honorable standing and respect with which the public have looked to the medical profession through generations, and thus takes advantage of the ignorant, morbid fears and easy gullibility of an unsuspecting public. There can be no doubt that a higher standard of education will do much towards keeping back this moral defective. It should be made possible for any recognized medical organization to investigate charges against such villains without making itself, or individual members, liable for legal action for slander.

Cannot we find some method of raising the intellectual average of our profession, and re-establishing, in the public mind, that confidence which the best elements and, I hope, the majority of our members, deserve? Would it not be well for the profession as a whole, if we were compelled by the State, to keep up-to-date continually and pass examinations every five or seven years? Failure to pass such examinations would not necessarily prevent those who failed from carrying on some form of medical practice within the limits of their capacity. Success in these examinations would be indicated by some additional

distinctions which would be an invaluable help to the general public, which, as we have shown, sadly lacks State guidance in making its selections.

SPECIALISTS vs. TRUE CONSULTANTS

In the U.S.A. the public have at last become disgusted with the multiplication of specialists. They have their heart specialists, lung specialists, blood specialists, nerve specialists, kidney specialists, and child doctors. Many of these have cast our code of ethics to the winds of Heaven, and with their egotistical appreciation of their own importance, their only selfish concern is a still further increase in their material and commercial advancement.

In our present methods of general practice, the man who, in the face of the definitely known advances in scientific information, undertakes to conduct his business in an attempt to cover all branches completely, must have a hard time to satisfy his conscience in moments of quiet, if any there be. It would therefore be quite ridiculous to suggest that we have no experts at all.

The teacher or consultant who, by long experience and training, is fully qualified, will be always necessary for development in certain fields of work. He should have plenty of time in daily routine for study and research. In many centres he should be able to conduct classes or clinics, whereby the common doctors who are left, may then have some opportunity to keep abreast of the latest theories and methods.

In such classes the common doctors, and indirectly through them, the public at large, would have the best possible opportunity for judging the real worth of such consultants. The public must always be protected against those who attract the unsuspecting, with merely the outward appearance of success, high-sounding titles and fictitious attainments.

Pottenger says, "One part can not be diseased without affecting other parts. No organ can be understood except in its relationship to other organs and to the body as a whole. The superior man in the medicine of the future will not be the great laboratory worker, or the man who is known for his studies in metabolism, or the expert gastroenterologist, or neurologist, or surgeon, or he who stands pre-eminently above his confreres in his knowledge of diseases of the heart and arterial system or of the lungs, but the man who recognizes the fact that the truths derived from all of these sources of study and investigation must be interpreted as belonging to the human patient as a whole—in other words, the internist who appreciates the unity of medicine."

In the ordinary routine care of the sick public, what is needed to-day is the well-trained general practitioner, the old-time confidant, the family doctor. On him the patient could then depend for aid, to carry on the system of treatment advised by a consultant in a case of a serious malady, or for honest and safe advice during the many minor ailments which, if properly cared for, play such an important role in preventive medicine as applied to the individual? As the years go by he would gain by experience and study, so that with more

matured judgment he would be better able to take care of the more common ailments and guide the "ship in distress."

POST-GRADUATE MEDICAL EDUCATION

Whether the State will, or will not, at once or in the near future, demand this scheme for periodic examinations, there should immediately be instituted some better provision for post-graduate medical education, and this should be made possible with as little inconvenience and expense as possible to those who will be willing to avail themselves of such an opportunity.

It has been demonstrated that only a small portion of our profession in the past has been willing to undertake these post-graduate studies in large metropolitan centres. In our present condition of living and working as a result of the war, we now find it more difficult, if not impossible, to leave our work for any extensive period of study.

If the universities were willing to co-operate, a large number of our profession would be willing to take advantage of any scheme which would carry such post-graduate studies directly into each county or to some special centre within easy reach of the large percentage of the medical population of that district. A course of lectures given each week at a stated time would surely attract many, and supply an extension of medical education which is needed at the present time. The Government of the Province should assist us in bringing this about, by insisting that every hospital getting monetary aid for the maintenance of their patients, should be used for clinical teaching for the benefit of the profession in its district, to the full limit of the possibilities in each individual case. Undoubtedly further Government assistance should be sought in order to develop efficient laboratory service, wherever the sick public are being taken care of in such institutions.

Will local groups be willing to pay their share of the cost? This question can be answered best by stating that a local group of dentists in Hamilton, about twenty-five in number, were willing to try this method, and have spent $3,000 within the past twelve months on post-graduate courses. Surely the members of our profession, when they see the urgent need for advanced training, will be willing to spend any amount to bring well qualified teachers to their own door. The now poorly paid University staff might look forward to this legitimate field for increasing their incomes without counting on the uncertainty of future profit in consultation work.

BY WAY OF IMPROVEMENTS

Personally, I hope that we ourselves will undertake some method to correct the evils during the present interregnum. Surely the time is critical and each and every one should use every opportunity to interest every member of the profession in his real duty towards society, and further a more complete organization

of the profession such as we have recently attempted under the Ontario Medical Association, acting through county organizations.

I believe that with this better organization, a better trained profession, a wide-awake, but restricted, Board of Health, and possibly with the addition of diagnostic centres, and some real consultants, we should have little need for a general re-organization of the profession as outlined in the proposed draft for national health insurance.

I wish to acknowledge the assistance I have received from Lambert, Robinow, Devine and the literature of the American Association of Labour Legislation, having very freely quoted from their writings.

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Ontario Medical Association

Toronto, May 25, 26, 27, 28, 1920

To the Members of the Ontario Medical Association:

A survey of the preliminary programme cannot fail to impress the members of the Association of its excellence. For many weeks the Programme Committee has been assiduously working, with the result that we are now in a position to present a preliminary programme which should appeal to every member.

The Association has been very fortunate in securing the use of Hart House for parts of our Scientific Programme and social functions. While enjoying the privileges of this magnificent gift to Toronto University, the members will also be afforded an opportunity of making use of the Lounge and Smoking Rooms, etc., which should add very materially to the pleasure of our Convention.

The Medical Building, which has been placed at our disposal, presents certain features by way of well-appointed lecture rooms, etc., which will permit of excellent facilities for general and sectional meetings.

Many of the profession will be interested to know that the Connaught Laboratories, which are fulfilling a useful service to the profession in Ontario, will be open to all members attending the Annual Meeting who care to visit them.

Every indication points to our Fortieth Annual Meeting being unprecedented in point of view of merit and interest, and a large representation of the members is confidently anticipated.

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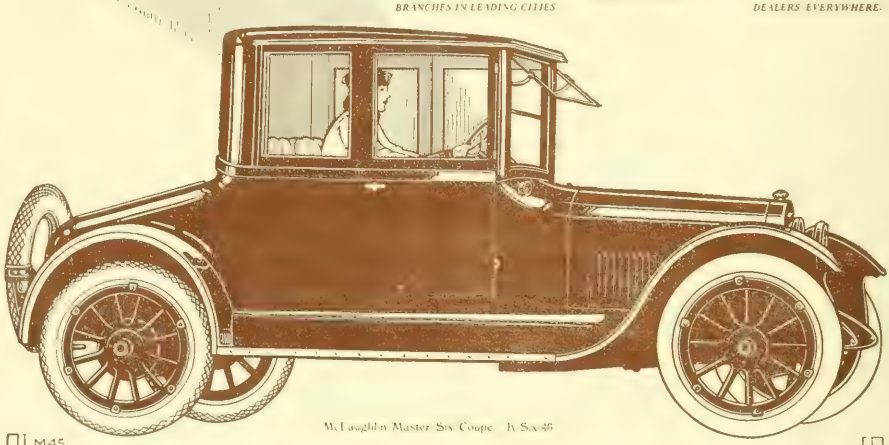

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No tread has been subjected to more severe tests—or closer observation.

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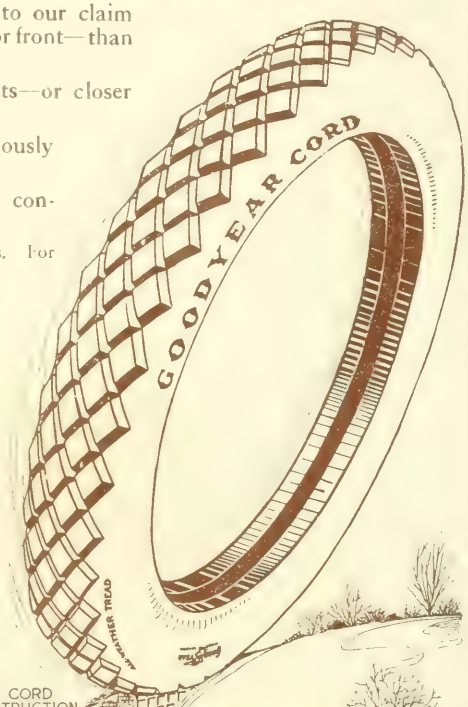

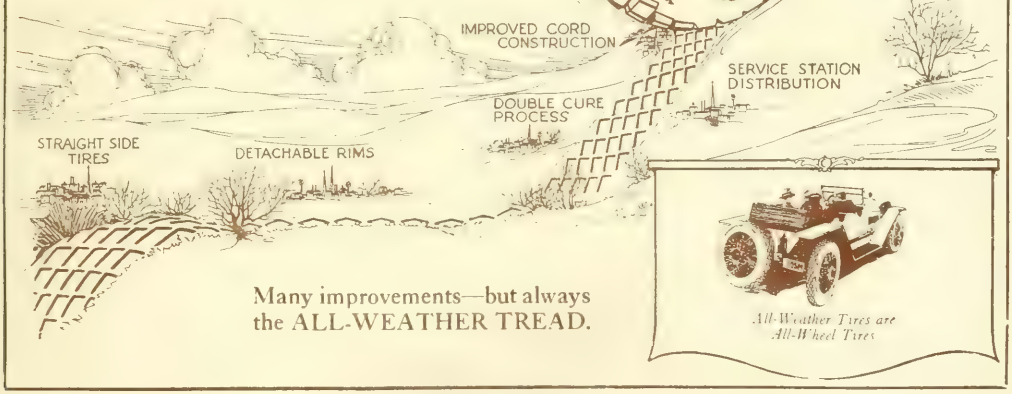

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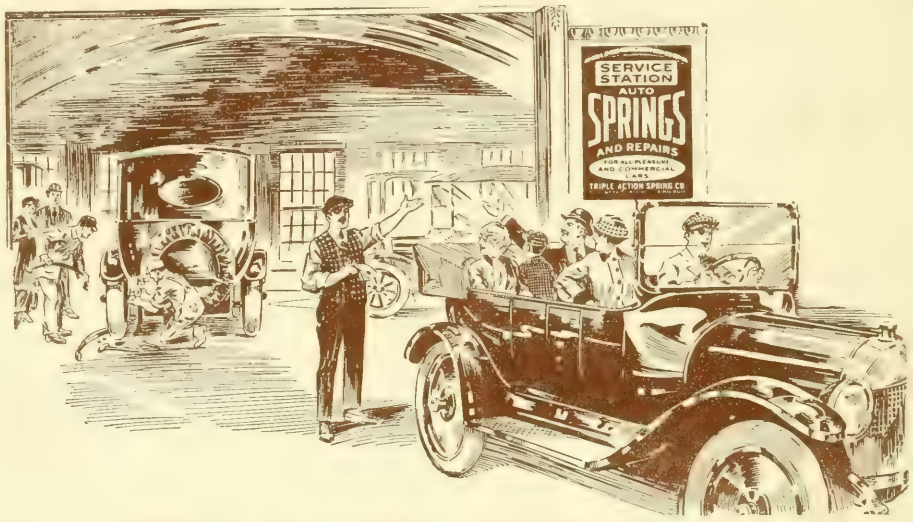

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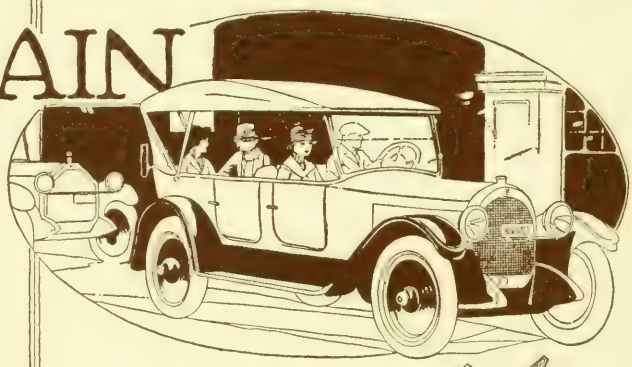

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SYPHILIS AND GONORRHŒA FROM THE PUBLIC HEALTH POINT OF VIEW

R. R. McClenahan, B.A., M.B.

Provincial Board of Health of Ontario, Toronto.

As a great deal of interest in syphilis and gonorrhœa has been aroused of late years, and as the seriousness of these diseases with the resulting loss to industry has been brought to the fore, the measures being taken from a public health standpoint by the Provincial Board of Health of Ontario will, no doubt, be of interest to the profession.

On the advice of the Provincial Public Health officials, the medical profession and prominent social workers throughout Canada, the Canadian Government made a grant of $200,000 (this to be a yearly grant to last for at least three years if conditions warrant it) towards combating venereal diseases. This grant was divided among the Provinces according to population, and was given on the understanding that the Provinces would advance an equal amount. $10,000 of this grant was made to the Canadian National Council for Combating Venereal Diseases, a voluntary organization whose aim was along the lines of education, advertising and propaganda. The share allotted to the Province of Ontario was $57,473.68.

The Ontario Government advanced an equal amount, making the total sum of $115,000 available for the campaign in Ontario.

A Division of Venereal Disease is being organized. This bureau will have charge of the effort of the Provincial Board of Health. It is proposed to divide the campaign into two heads:

(1) Education.

(2) Treatment.

Education.

The most important part of the campaign is education along public health lines. This education will be general in character. It will embrace the medical profession, dentists, druggists, nurses, public men and business officials, social workers, and the general public. A very excellent scientific book called "To-day's World Problem in Disease Prevention," written by Dr. John A. Stokes of the Mayo Clinic, is now in the printer's hands, and will shortly be available for all medical men free of cost. This book takes up the venereal diseases in a practical and interesting way, and will, no doubt, be of great value to medical men throughout Ontario.

Pamphlets and bulletins are in course of preparation for dentists, asking their support, and also for druggists, enlisting their support to fight the dangers of quacks and self-treatment.

The Venereal Diseases Act and the Regulations are being strengthened and improved, so that the treatment of these diseases may be made more efficient.

Pamphlets will be printed suitable for all classes, including nurses, social workers and the home. Lecturers will be sent out where desired to put the dangers of these diseases fairly before the public. There will be an advertising campaign carried on in newspapers and periodicals in Ontario. It is also proposed to show films from time to time on the venereal problem. The Canadian National Council for Combating Venereal Diseases has such a film, which will be shown very shortly throughout Ontario. All available methods for placing the venereal problem before the public will be used.

Treatment.

No campaign of this character, however, can be complete unless adequate free treatment is provided as well. At the present time all cases of venereal diseases in reformatories and prison farms, etc., are being treated by a specialist medical officer employed by the Provincial Board of Health. All inmates of prisons, reformatories, jails, etc., are examined for venereal disease—smears are taken on all women and on men if considered advisable. All inmates have Wassermanns taken on admission. All cases are treated and kept in institutions until considered safe from a public health standpoint, whether this necessitates their being kept over their time or not. These cases when set free are referred to the local Medical Officer of Health for further treatment or observation as necessary.

A license to manufacture an arsphenamine product has been given to the Board. Through it the Board has power to sell or give free of charge an arsphenamine product to its clinics, and also to hospitals and institutions throughout the Province. It is expected that the product will be available in two months' time.

The Board is arranging to establish special treatment clinics in the larger cities throughout the Province for the free treatment of venereal diseases. These clinics are being very generously dealt with, and it is hoped that the treatment they will be able to give those infected and in need of free treatment will be of help in preventing the spread of these diseases.

The following proposition is being presented to the municipalities where, in the opinion of the Board, a clinic is advisable. A schedule of apparatus and furnishings suitable for the adequate treatment of these diseases has been drawn up and will be part of the standard equipment required before Government aid will be given the clinic.

The Board feels that the choice of a site for the special clinic or clinics in the various municipalities should be left to a certain extent in the hands of the

local authorities, who understand local conditions. The Board would suggest, however, that where facilities already exist, as in the case of hospitals, etc., other things being equal, these facilities should be used. The Board will afford the following assistance to each clinic established:—

(1) For the purchase of furnishings and apparatus for a special clinic, $1,000. (It is thought that the cost of the apparatus and furnishings will not exceed this amount.) Where a clinic is already in existence and up to the standard, the same financial assistance will be given.

(2) To assist in the payment of a social service nurse, $500.00 yearly.

(3) For each out-patient treatment for gonorrhœa, 50c. For each out-patient treatment for syphilis, 50c. (No more than one treatment each day will be paid for.) For each out-patient treatment for syphilis in addition, free "salvarsan" will be provided—as soon as the Board is in a position to furnish its own product.

(4) In the case of patients treated in the hospitals, the sum of 25c in addition to the foregoing grants will be paid to the hospital for each day of indoor treatment up to three months, at the end of which time the indoor grant will cease.

(5) Standard record forms for the use of these special clinics will be supplied by the Board.

In return for this assistance the Board will require that the clinic will be kept up to a certain standard, as follows:

(1) The special clinic shall be for the treatment of venereal diseases.

(2) The apparatus and furnishings for the clinic shall be as set forth in schedule.

(3) The personnel of the clinic shall be:

(a) One specialist in venereal diseases, who shall be appointed by the hospital if the clinic is in connection with a hospital and by the local Board of Health in other cases. This officer must also be satisfactory to the Provincial Board.

(b) Such medical assistants as may be necessary shall be appointed on the same basis.

(c) One full time social worker, who shall be a graduate nurse.

(d) One clerk, if the clinic is treating more than forty cases per week.

(e) One male orderly.

(f) If possible, one undergraduate nurse to assist in the clinic.

(4) All treatment in the clinic shall be free.

(5) At least one night and two day clinics shall be held per week. (This may be modified on agreement.)

(6) Separate hours shall be set aside for men and women in the clinic, also, if possible, separate hours for the treatment of gonorrhœa and syphilis.

(7) Weekly reports will be required on forms supplied by the Board.

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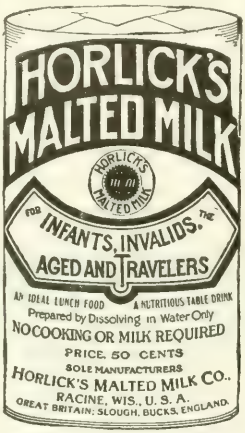

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THURSDAY—Continued.

SECTION OF EYE, EAR, NOSE AND THROAT MEDICAL BUILDING—ROOM D.

9.00 a.m.—A Consideration of the Present Status of the Tonsil Question.
Dr. N. King Wilson, Toronto.

An Analysis of 1,500 Nose, Throat and Ear Cases in the British Army in France.
Dr. J. K. Milne Dickie, Toronto.

A Note on the Dry Treatment of Middle Ear Suppuration.
Dr. Edmund Boyd, Toronto.

A Consideration of the Principles Underlying Plastic Surgery of the Orbits.
Capt. Fulton Risdon, C.A.M.C., Toronto.

Obstruction of the Lacrymal Passages and Its Treatment.
Dr. F. J. R. Forster, Stratford.

1.00 p.m.—Luncheon, Hart House. (To be followed by Address.)

2.00 p.m.—General Session—Medical Building, Room A.

Distribution of Adenomyomata Containing Uterine Mucosa.
Dr. Thos. S. Cullen, Baltimore, Professor of Gynæcology, Johns Hopkins Hospital.

Pregnancy as a Menace to the Tubercular Mother.
Dr. Jabez H. Elliott, Toronto.

4.00 p.m.—Business Session.

4.30 p.m.—Garden Party, given by Mrs. Walter Massey, at Dentonia Park.

8.15 p.m.—General Session—Medical Building, Room A.

Clinical and Experimental Study of Pancreatitis.
Dr. Edward Archibald, Montreal, Lecturer in Clinical Surgery, McGill University.
Discussion to be opened by:
Dr. F. N. G. Starr, Toronto.

The Necessity for Change in Our Educational Formula, with Particular Reference to Medicine.
Dr. George D. Stewart, New York; Prof. of Surgery, University and Bellevue Hosp. Medical Coll., N.Y.
Discussion to be opened by:
Dr. Hadley Williams, London.

Diverticulitis of the Large Bowel.
Dr. James Masson, Mayo Clinic, Rochester, Minn.
Discussion to be opened by:
Dr. H. A. Bruce, Toronto.

Friday May 28th

MEDICAL SECTION—MEDICAL BUILDING, ROOM A.

9.00 a.m.—Presentation of Some Interesting Cases of Diseases of the Skin.
Dr. King Smith, Dr. Emerson J. Trow, and Dr. H. A. Dickson, Toronto.

Use and Abuse of Purgatives.
Dr. J. W. Crane, London.
Discussion to be opened by:
Dr. R. D. Rudolf, Toronto.

FRIDAY—Continued.

A Comparison Between the Interpretation of the Findings in Chronic Pulmonary Lesions by Clinical and Stereoroentgenographic Examination.

Dr. A. H. Caulfeild, and Dr. G. E. Richards, Toronto.
Discussion to be opened by:
Dr. D. W. Crombie, Gravenhurst
Dr. F. C. Neal, Peterboro.

Clinical Side of Empyema and Influenza.

Dr. Norman Gwyn, Toronto.
Discussion to be opened by:
Dr. G. W. Ross, Toronto.

Renal Functional Tests for the General Practitioner.

Dr. W. R. Campbell, Toronto.

The Treatment of Renal Disease in Regard to the Newer Functional Tests.

Dr. N. M. Keith, Toronto.
Discussion to be opened by:
Dr. Wm. Goldie, Toronto.

SURGICAL SECTION—MEDICAL BUILDING, ROOM B.

9.00 a.m.—Treatment of Ununited Fractures.

Dr. D. E. Robertson, Toronto.
Discussion to be opened by:
Dr. W. E. Verrall, Toronto.

Surgical Treatment of Empyema.

Dr. John Y. Parry, Hamilton.
Discussion to be opened by:
Dr. George E. Wilson, Toronto.

Diagnosis of Some Acute Abdominal Conditions.

Dr. S. M. Hay, Toronto.
Discussion to be opened by:
Dr. Norman Shenstone, Toronto.

Tumours of the Brain.

Dr. Emerson Hodgins, London.
Discussion to be opened by:
Dr. John M. Rogers, Ingersoll.

Pain in the Right Iliac Fossa.

Dr. Roscoe Graham, Toronto.
Discussion to be opened by:
Dr. Fred Mowbray, Hamilton.

SECTION OF OBSTETRICS AND GYNÆCOLOGY—MEDICAL BUILDING, ROOM C.

9.00 a.m.—Induction of Labour.

Dr. B. P. Watson, Toronto.

Further Notes on the Prophylaxis and Treatment of Eclampsia.

Dr. K. C. McIlwraith, Toronto.

The Value of the Episiotomy in Parturition.

Dr. J. Gordon Gallie, Toronto.

SECTION OF EYE, EAR, NOSE AND THROAT—MEDICAL BUILDING, ROOM D.

9.30 a.m.—Clinical Meeting.

Arrangements have been made for the attendance of a large number of very interesting Eye, Ear, Nose and Throat cases. It is expected that this will be a special feature of the meeting, and a discussion will follow the exhibition of the cases.

1.00 p.m.—Luncheon at Toronto General Hospital. (As guests of the Board of Trustees of the Hospital.)

2.00 p.m.—Medical, Pædiatric and Surgical Clinics at Toronto General Hospital and Hospital for Sick Children.

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ANONYMOUS CONTRIBUTIONS, whether for publication, for information, or in the way of criticism, are consigned to the waste-basket.

NEWS: Our readers are requested to send in items of news, also marked copies of newspapers containing matters of interest to physicians. We shall be glad to know the name of the sender in every instance.

We are open to receive from any member of the medical profession signed articles which we shall be glad to publish purely from an unbiased standpoint. The Canadian Medical Monthly is published in the interests of the profession in Canada, but articles contributed by Physicians in the United States and Overseas are gladly accepted.

Any practitioner who is in possession of copy that would be of interest and benefit to the profession, will confer a favor by corresponding with the editor.

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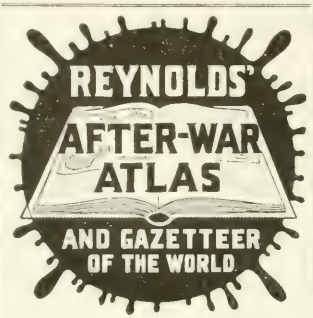

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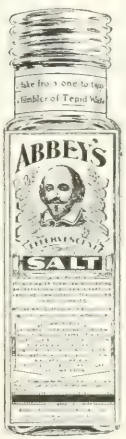

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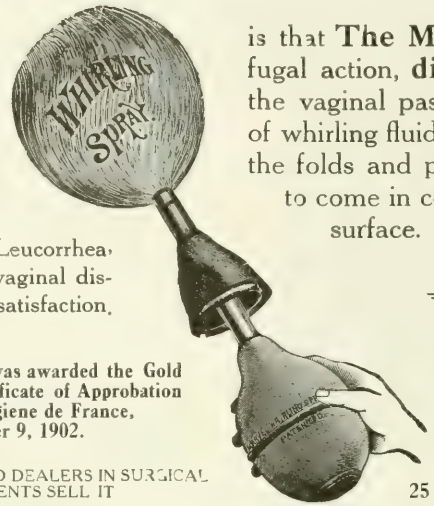

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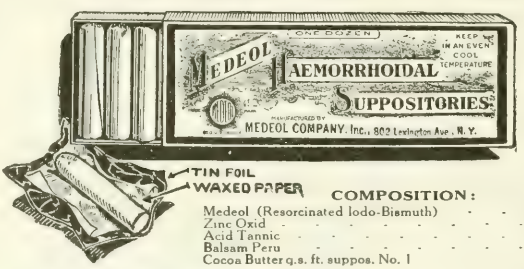

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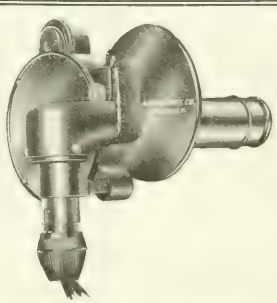

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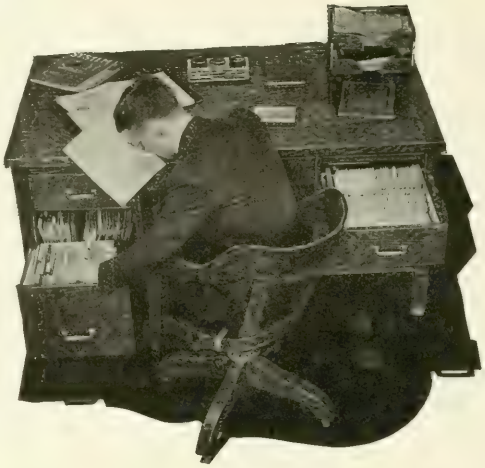

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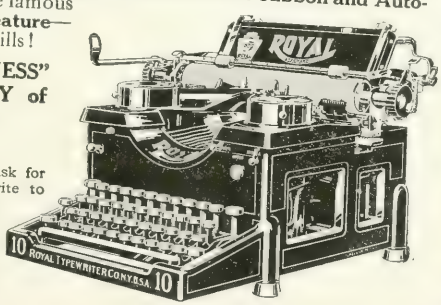

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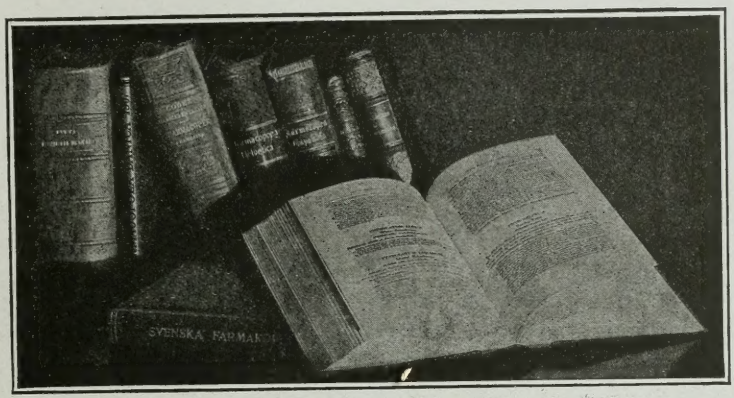

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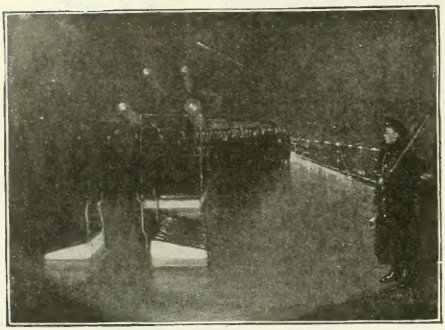

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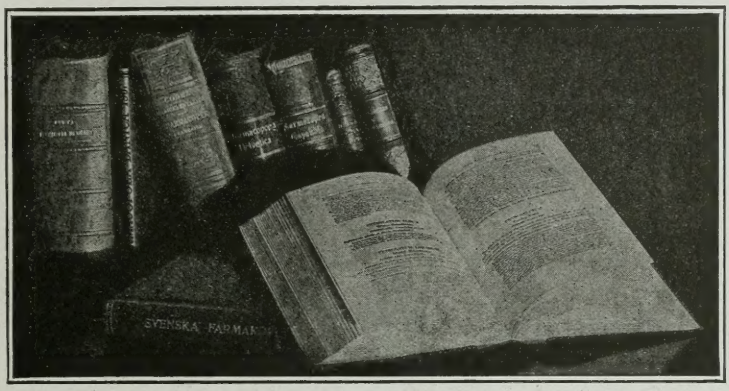

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